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To: The Broadcasting and Telecommunications Legislative Review Panel
c/o Innovation, Science and Economic Development Canada
235 Queen Street, 1st Floor
Ottawa, Ontario
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Via email: ic.btlr-elmrt.ic@canada.ca

Subject: **Review of the Canadian Communications Legislative Framework – Comments**

1. BCE Inc. (Bell) is pleased to provide our Comments and the related Attachments to the Broadcasting and Telecommunications Legislative Review Panel (the Panel) in response to the Panel's 24 September 2018 Call for Comments.

2. This review comes at a crucial time as the Canadian communications industry undergoes a transformation marked by intensifying competition and the pressing need to invest significantly in infrastructure and innovation. In telecommunications, a modernized policy approach is required to prioritize facilities-based competition and support the future network investments that are essential to ensuring Canadians have access to advanced networks of the highest quality in all regions of the country. Access to the highest quality networks is what will drive innovation and support the digital economy for years to come. In our submission, we provide detailed recommendations in this regard. These include the following priorities:

- Encourage and support facilities-based competition and network investment;
- Shift the *Telecommunications Act* away from its monopoly roots in favour of a modernized approach which reflects today's intensely competitive environment;
- Adopt a presumption of competition rather than a presumption of regulation;
- Facilitate access to municipal infrastructure in order to support next generation network builds;
- Confer clear jurisdiction on the Commission to combat online content theft in order to support the Canadian broadcasting ecosystem; and
- Close the Internet platform privacy gap.

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3. Similarly, the broadcasting industry is now driven by distribution of content over the Internet and the regulatory framework must adapt to this reality. Regulation based on spectrum scarcity and a closed system is no longer viable. Cultural regulation must now apply to all industry players, new and old, international and domestic, and should focus on supporting the traditional broadcasting system while expanding the reach of cultural contributions to include currently exempt content providers. In examining the broadcasting regime, the Panel must seek to craft a framework that addresses new technologies while preserving the core aspects of the current system. Our detailed recommendations include the following priorities:

- Eliminate regulatory advantages given to foreign services;
- Require foreign content providers and distributors to contribute to the Canadian broadcasting system;
- Adjust the existing obligations of licensed Canadian services to reflect the new competitive reality;
- Fix the local television business model to support local journalism; and
- Combat content piracy.

4. In support of our proposals we are also including the following Attachments:

- Attachment 1: Bell's Proposed Annotation to the *Telecommunications Act*
- Attachment 2: Bell's Proposed Annotation to the *Radiocommunication Act*
- Attachment 3: Bell's Proposed Annotation to the *Broadcasting Act*
- Attachment 4: Wall Communications Inc., "A Research Report Examining Affordability in the Canadian Mobile Wireless and Fixed Broadband Markets"
- Attachment 5-A: Charles River Associates, "Delivering Better Broadband Performance: Facilities Competition vs. Access Regulation"
- Attachment 5-B: Charles River Associates, "An International Comparison of End-to-end Facilities Based Competition in Telecommunications"
- Attachment 5-C: Charles River Associates, "Investment and Competition Effects from Creating Mandated MVNO Access to Wireless Networks in Canada by Redefining MVNO Networks to Include Public Wi-Fi"
- Attachment 6: Armstrong Consulting, "Current and Projected Trends in the Economic Structure and Performance of the Private Broadcasting Industry in Canada"
- Attachment 7: Peter Miller, "Local Television News in Canada: Prospects and Proposals for Action"
- Attachment 8: The FairPlay Reply Arguments filed as part of the FairPlay Canada Part 1 Application
- Attachment 9: Gillan Consulting, "The Experience of the Relaxation of UK (England) Legislation to Allow More Efficient Roll-out of Communications Infrastructure"

5. We are grateful for the opportunity to participate in this important process at such a defining moment in the Canadian communications industry. The Panel has been presented with a unique opportunity to position the country's communications industry for decades of continued success. We hope that the attached recommendations, based on our extensive experience in every aspect of the industry, prove useful and we thank the Panel members for their careful consideration.

Yours truly,

[Original signed by R. Malcolmson]

Robert Malcolmson

Senior Vice-President – Regulatory

Attachments

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REVIEW OF THE CANADIAN COMMUNICATIONS LEGISLATIVE FRAMEWORK

**COMMENTS
OF
BCE Inc.**

11 JANUARY 2019

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EXECUTIVE SUMMARY

E1. This review comes at a crucial time, and presents a unique opportunity for the Panel. As the Call for Comments identifies, the Canadian communications industry is undergoing a radical transformation. That transformation is producing more competition from more platforms and players than ever before, while at the same time demanding large ongoing investments in infrastructure and innovation to meet evolving consumer demands.

E2. This pace of change makes it necessary to reevaluate whether the existing legislative framework for the industry is the most effective means of meeting enduring public policy goals, including continuing to provide Canadians in communities of every size timely access to advanced telecommunications networks, and sustaining a broadcasting and cultural system that reflects, inspires, and informs them.

E3. Canada has so far had great success achieving these public policy goals despite being a large country covering 10 million square kilometers, operating in two official languages, and sitting next to an economic and cultural powerhouse that is ten times its size. Like policymakers at other key points in the development of Canada's communications system, the Panel now has the chance to put the legislative building blocks in place for decades of continued success. In this submission, we are pleased to provide our views, based on extensive experience in every aspect of the industry, on how best to do so.

Telecommunications in Canada today

E4. For nearly 30 years, a policy of facilities-based competition has produced for Canada robust and leading-edge digital infrastructure and highly competitive markets.

E5. Across the country, the industry is nearly halfway through a generational infrastructure program rolling out all-new advanced fibre-to-the-premises (FTTP) and wireless-to-the-premises (WTTP) broadband networks to nearly every Canadian home. This is being done with billions of dollars of private investment, effectively all of which comes from full facilities-based competitors. Telecom networks compete with advanced cable broadband that is more widely available in Canada than the vast majority of other countries in the world. Competition between these two types of facilities-based competitors has produced a vigorous and dynamic market that serves Canadians' interests.

E6. In wireless, Long-term Evolution (LTE) networks reach more than 99% of Canadians and our LTE-Advanced network reaches 92% of the population. Indeed, Canadian wireless networks are consistently identified as among the best in the world, and the industry is poised to invest in a rapid and widespread roll-out of their next evolution, 5G, as soon as the spectrum, device availability, and other conditions are in place. These dynamic benefits are being delivered to consumers in markets that also include four facilities-based competitors in every region.

E7. Effectively, all of this infrastructure has been built from private investment. In a report attached to this submission, Margaret Sanderson and Matthew Cormier of Charles River Associates conclude:

[T]he academic literature studying investments in telecommunications finds more favourable outcomes are achieved when access regulation is limited – notably, higher investment levels and higher speed networks are achieved with generally no worse outcomes for pricing. In light of the negative effects on investment, countries relying on extensive wholesale access regimes have often ended up making substantial public investments in broadband as an alternative way to expand next generation networks. Using recent data for the G7 countries plus Australia, we reach similar conclusions to the academic literature.

E8. The 1993 *Telecommunications Act* was drafted to move from almost a century of near-monopoly provision of traditional wireline home phone telephony to competitive markets. Given the starting point, the approach was to use, by default, regulatory-initiated competition depending on detailed micro-regulation of retail and wholesale markets (including mandatory wholesale tariffs and network unbundling) to facilitate the transition over time to the desired end-state of facilities-based competition.

E9. The landscape has changed dramatically since then: there is now competition across multiple telecommunications services, between multiple networks and providers, and from global over-the-top (OTT) services. The challenge for the Panel is to craft a modernized approach that recognizes the primary role played by facilities-based competition and promotes a stable business climate that supports massive investments of private capital to continue to build advanced telecommunications networks for Canadians in large and small communities.

E10. We believe this can be done while also ensuring the Canadian Radio-television and Telecommunications Commission (the Commission) has the ability to impose flexible, tailored regulatory measures that address any remaining areas of significant market power or non-

economic social policy goals. In Section 4.3 and Attachment 1 of this submission, we provide detailed recommendations in this regard. These include the following priorities:

- ***Presumptive support for facilities-based competition:*** Rather than regulating every retail and wholesale service by default (i.e., unless they have specifically been forborne), the *Telecommunications Act* should provide for regulation only after a finding of significant market power (SMP). This is the modern approach applied in other jurisdictions, such as the EU, because in the absence of SMP there can be no economic justification for regulation. The Commission should also be able to restrict mandated access so that it is not available to companies such as the national wireless carriers or global Internet giants, who have the means to make the necessary investments themselves.
- ***Create oversight for key regulatory economics decisions:*** Under a modern legislative scheme, Commission decisions related to SMP have vast financial consequences for the parties involved and long-term investment and market consequences for the country. In these circumstances, rigorous independent and expert oversight would provide significant public policy benefits. In the Canadian context, the Competition Tribunal (the Tribunal) is best placed to provide this oversight. Accordingly, the *Telecommunications Act* should be amended to allow interested parties to challenge any Commission determination under SMP or related tests before the Tribunal.
- ***Accelerate access to municipal infrastructure:*** The requirement to obtain municipal consent to access rights-of-way required for advanced telecommunications networks introduces delay, costs, and uncertainty into the network deployment process. Following a successful approach introduced in the United Kingdom, Canada should replace the requirement to obtain prior consent with a notification regime in order to facilitate the faster and wider roll-out of advanced telecommunications networks.
- ***Avoid prescriptive cybersecurity rules that inhibit industry responses to cyber threats:*** Carriers have an overriding commercial incentive to protect their customers (and their customers' customers) from malware, identity theft, and other cybersecurity threats. The Panel should avoid recommending rules that restrict the flexibility of carriers to respond to threats to digital rights in the manner that best protects their customers' interests. The Panel must also take into account the fact that prescriptive regulation could cause solutions to be designed to meet regulatory mandates rather than

address the underlying threats, and could undermine the current commercial incentive that is driving investment in this area.

- ***Close the Internet platform privacy gap:*** In modern data-related markets, telecommunications carriers must compete with Facebook, Apple, Google, Amazon and many others, yet Canadian carriers are subject to significantly more onerous rules. There is no justification for applying lower standards to some sectors and to foreign-owned companies simply because it is convenient to do so.

Broadcasting in Canada today

E11. For close to a century Canada has maintained a broadcasting industry that gives Canadians in every region the opportunity to tell and hear their own stories and access to the best content from around the world. It has done so by incorporating each successive wave of broadcast technology (radio, over-the-air (OTA) television, cable, direct-to-home (DTH) satellite and Internet protocol television (IPTV)) into a single Canadian broadcasting system. As a result, Canada is effectively the only country in the world in which there is longstanding, widespread access to American and foreign channels (including the big 4 American networks), as well as dozens of widely-viewed domestic services supporting a domestic content production ecosystem.

E12. Canadians have also been among the earliest and most active adopters of over-the-top (OTT) video services. In the last ten years, countless OTT alternatives have emerged to replace the existing system in whole or in part for many consumers. Today there are at least 20 major foreign OTT television services available in Canada with between 5 and 10 more expected to launch in the near future.¹ Approximately 54% of Canadian households² subscribe to these services, which likely earn upwards of \$1 billion a year in revenue from broadcasting in Canada. Yet these services have not been incorporated into the broadcasting system the Commission has chosen to regulate.

¹ For example, Netflix, Amazon Prime, CBS All Access, BritBox (BBC), Hayu (NBC), and DAZN are available in Canada today and Disney Play, Amazon Channels, and longform video offerings from YouTube, Facebook, and Apple are expected to launch here in the short term.

² See Attachment 6, Armstrong Consulting, *Current and Projected Trends in the Economic Structure and Performance of the Private Broadcasting Industry in Canada* (November 2018) [Armstrong Report], page 22.

E13. A comprehensive regulatory regime for broadcasting in Canada was not created because broadcasting markets require special economic or consumer protection regulation. Canadians have long paid significantly less than Americans for traditional linear services,³ and the options available have expanded rapidly in recent years. Instead, broadcasting is regulated because it has been considered the best way to meet Canada's cultural policy objectives. Given the undeniable trends, continuing to regulate only the traditional Canadian players will mean abandoning those objectives.

E14. Other trends are challenging other core aspects of the system. As digital advertising erodes traditional platforms, the legislative scheme that restricts local television stations to earning only advertising revenues has become unsustainable, threatening the important contributions these stations make to Canada's democracy. Meanwhile, the rapid growth of digital piracy is undermining the content market integrity that is essential to developing the digital business models that will allow Canadian companies to thrive in the modern broadcasting environment.

E15. Just as policy-makers have, for decades, adapted the broadcasting regulatory system to address new challenges, the Panel has an opportunity to craft a framework that preserves the core aspects of that system in the modern environment. In Section 5.6 and Attachment 3 of this submission, we provide detailed recommendations in this regard. These include the following three priorities:

- ***Eliminate regulatory advantages given to foreign services:*** There is no justification for foreign services participating in the broadcasting market in Canada to be exempt from the regulatory obligations imposed on Canadian services in those same markets. We recommend an approach that would have all services exceeding certain size thresholds make equivalent contributions to Canada's cultural policy objectives. While this approach could be implemented by the Commission today under the existing *Broadcasting Act*, the Commission appears to be seeking policy direction from Government. The Government should therefore issue a direction or amend the *Broadcasting Act* in a manner that indicates its preference that the Commission act in this area.

³ Scotiabank, *Converging Networks* (14 May 2018) at Exhibit 7.

- ***Fix the local television business model to support local journalism:*** Local television stations are a foundational element of Canada's broadcasting system and essential to the Canadian news ecosystem. For nearly a decade policymakers have known that these services must be able to earn subscription revenues to survive in the modern environment, but the statutory framework has undermined the Commission's efforts to implement such a regime. The *Broadcasting Act* should be amended to allow local Canadian stations with local news obligations to earn subscription revenues.
- ***Combat content piracy:*** The growing impact of piracy on Canada's broadcasting system cannot be ignored. International and Canadian experience demonstrates the tools that can be effective in mitigating this threat. The *Telecommunications Act* should be amended to empower the Commission to create a system that disables access in Canada to sites that are blatantly, structurally, or overwhelmingly engaged in content theft. Such a policy is actively supported by an unprecedented coalition of creators, labour groups, broadcasters, exhibitors, cultural institutions and others. In addition, replicating the successful approach taken to satellite piracy under the *Radiocommunication Act*, the *Broadcasting Act* should be amended to create a criminal provision targeting organized content theft undertaken for commercial gain.

E16. We outline below a point form summary of all of our recommendations which are discussed in detail in sections 4.3, 4.4 and 5.6 of our Comments.

Telecommunications Act

- T1. Re-orient the policy objectives in section 7 of the *Telecommunications Act* to focus the Commission on encouraging innovation, facilitating access to advanced networks in all areas of the country and supporting facilities based competition.
- T2. Shift the *Telecommunications Act* away from its monopoly roots and towards a modernized approach to regulation which reflects today's intensely competitive environment. This requires replacing the current presumption of regulation with a "presumption of competition"; an approach that imposes economic regulation only after a finding that a telecommunications service provider (TSP) has significant market power.
- T3. Consistent with the presumption of competition, shift the burden of establishing that an alleged discrimination or preference is unjust or undue to the party making the claim.

- T4. Limit telecommunications wholesale regulation (i.e., mandated access to facilities) to instances in which: (i) unjust discrimination/undue preference has been established; (ii) the TSP that controls the relevant facilities possesses significant market power such that denying access to those facilities would result in a substantial lessening or prevention of competition; and (iii) it is not feasible for the complainant to duplicate the facility to which access is sought. This codifies the existing and widely-accepted essential facilities test.
- T5. As for renewing the institutional framework, the Commission should make the initial findings of significant market power but the Competition Tribunal should be given the power to review such findings (but not the remedies imposed by the Commission). The Competition Tribunal is an expert panel that makes similar rulings with regard to applications, under the *Competition Act* today for all industries.
- T6. Where the Commission decides that regulatory intervention is necessary at the retail or wholesale level and that regulated rates must be imposed, those rates should be based on criteria that take into account the investments made by facilities-based providers and the benefits gained by those seeking access, including criteria that reflect the risks and true costs incurred to provide the service, a reasonable rate of return for the facilities-based provider, and the true value that mandated access provides to competitors.
- T7. In the interests of regulatory certainty and transparency, the circumstances in which the Commission can impose conditions of service on TSPs should be clearly articulated in the *Telecommunications Act* and should focus on the following clear social policy goals:
- i. facilitating access to emergency services;
 - ii. enabling access for persons with disabilities;
 - iii. facilitating switching between service providers;
 - iv. ensuring network security; and
 - v. stopping unsolicited telecommunications.
- T8. In order to facilitate the roll-out of next generation networks, the existing requirements for TSPs to obtain municipal consent to construct networks on public property (such as installing telecom poles to hold new fibre networks on city property) should be changed to a notice requirement with a right for municipalities to challenge TSPs behaviour before the Commission. In addition, the Commission should have a clear statutory ability to order landlords and building owners to provide TSPs with access to their buildings for the purposes of serving their residents, on terms set by the Commission.

- T9. In recognition of the reality that content pirates operate anonymously and beyond the reach of traditional judicial remedies, the Commission should be empowered to disable access to illegal websites that are blatantly, overwhelmingly or structurally engaged in content piracy. Specifically, the Commission should be empowered to: (i) impose conditions of service that prevent TSPs from being used to infringe copyright over the Internet; and (ii) direct TSPs to take appropriate action to block access to pirated content. It should also be clarified in the *Telecommunications Act* that Commission approval is unnecessary where a TSP is required by law (i.e., a court order) to block access to a website or otherwise take steps to stop content piracy.

Radiocommunication Act

- R1. In recognition of the importance of wireless services to the Canadian economy, policy objectives should be added to the *Radiocommunication Act*. The following objectives would guide the policy making of both the Minister and the Governor-in-Council:
- a. maximizing the economic benefits Canadians derive from spectrum resources;
 - b. using spectrum resources to support Canadian sovereignty and identity;
 - c. advancing and defending Canada's spectrum resources internationally;
 - d. promoting efficiency, innovation and investment in facilities-based competition;
 - e. relying on market forces and minimally intrusive regulation;
 - f. maximizing the efficient use of spectrum resources through flexible use and facilitating secondary markets; and
 - g. promoting administrative efficiency in spectrum regulation.
- R2. To ensure that spectrum licence fees do not distort the efficient use of spectrum or divert capital from investment in the next generation of wireless infrastructure needed to support Canada's digital economy, spectrum licence fees imposed on wireless service providers should seek to only recover the costs of managing spectrum.

Broadcasting Act

- B1. Given the rapidly shifting broadcasting landscape brought about by the emergence and growth of the Internet, and in order to ensure that Canada continues to have a strong broadcasting system, the guiding principles of the *Broadcasting Act* must be updated and the Commission should focus on a modernized approach to cultural regulation. This modern approach must apply fairly to all industry players, new and old, international and

- domestic, and should focus on supporting the evolving broadcasting ecosystem while expanding the reach of cultural regulation to include currently exempt content providers.
- B2. Our key recommendations to support the traditional broadcasting system include the elimination of existing policies and regulations through which the Commission dictates: (i) the terms upon which content must be made available on a wholesale basis; and (ii) the composition and price of retail programming packages. Removal of these forms of micro-regulation will place Canadian broadcasters on more equal footing with the unregulated providers with whom they compete while ensuring they can better contribute to Canada's cultural policy goals. The elimination of these forms of economic regulation under the guise of the *Broadcasting Act* would also definitively resolve any uncertainty around the Commission's ability to impose economic forms of regulation which directly affect exclusive copyrights created under the *Copyright Act*.
- B3. The current regulatory advantages given to foreign content providers must be eliminated. Our recommendations in this regard include: (i) requirements that foreign linear and OTT programming services with more than \$1 billion in annual revenue worldwide or Canadian revenues in excess of \$300 million should contribute 20% of their Canadian revenue to the Canada Media Fund (CMF); (ii) foreign linear and OTT distributors that meet the revenue thresholds in item (i), should contribute 5% of Canadian revenue to the CMF. At the same time as these new obligations are created, the existing obligations of licensed Canadian programming services and broadcasting distribution undertakings (BDUs) should be adjusted to better align with these newly created foreign contribution requirements.
- B4. The Panel should also endorse the longstanding call for foreign companies operating in the digital realm to collect and remit Canadian sales taxes when they sell subscription services in Canada. This change would eliminate a significant competitive cost advantage that results in digital services from these foreign firms being 13% less expensive than the services offered by their Canadian counterparts.
- B5. As the Panel well knows, the long-term viability of local television news and journalism are at risk in Canada. The historic model of free OTA distribution of television stations supported only by advertising revenues is no longer sustainable. In the context of this legislative review, our recommendation to remedy the crisis in local television is to amend the *Broadcasting Act* to create a statutory right enabling local television stations to charge licensed and exempt BDUs a fee in exchange for the right to retransmit their signals. This right to compensation would be subject to local television news obligations imposed on station operators by the Commission.

Conclusion

E17. For over a century, Canada's communications system has delivered significant nation-building, economic, cultural, and quality of life benefits to Canadians. Today, the companies regulated under the *Broadcasting Act* and *Telecommunications Act* employ more than the number of people working worldwide for all of Google, Facebook, Netflix, and Twitter combined.⁴ These Canadians work tirelessly to deliver world-leading networks and a broadcasting system that reflects their fellow citizens' voices and responds to their evolving demands.

E18. The Panel's review will set the course for this system for years to come. In this submission, we have tried to provide the Panel with information and recommendations that will assist it in doing so successfully. Attached to this submission are annotated mark-ups of the relevant statutes, which outline a comprehensive and concrete plan for implementing our recommendations, and expert reports (described at paragraph 12), which provide the Panel with additional information to assist in its deliberations. We would like to thank the Panel for the opportunity to participate in the process, and look forward to continuing to do so.

⁴ Worldwide, Alphabet (including Google and all of its affiliates) has 94,372 employees (Alphabet Inc., Form 10-Q For the Quarterly Period Ended September 30, 2018, page 33); Facebook has 33,306,606 employees (Facebook, "Company Info", available online at <https://newsroom.fb.com/company-info/>); Netflix has 5,500 employees (Netflix Inc., Form 10-K for the fiscal year ended December 31, 2017, page 2); Twitter has 3,800 employees (Twitter, Q3 2018 Letter to Shareholders (25 October 2018), page 10); in total, these companies have approximately 137,000 employees. We employ approximately 52,000 people (BCE Inc., 2017 Annual Report, page 7); Telus has approximately 53,600 employees, including 25,700 employees in Canada (Telus, 2017 Annual Report, page 34-35); Rogers has approximately 24,500 employees (Rogers, "Company Overview", available online at <https://investors.rogers.com/company-information/company-overview/>); Quebecor has more than 10,000 employees (Quebecor, "Careers" available online at <https://www.quebecor.com/en/careers>); Shaw has approximately 10,000 employees (Shaw, 2018 Annual Report, page 2); Cogeco has approximately 5,200 employees (Cogeco Inc., 2018 Annual Report, page 6); Corus has approximately 3,200 employees (Corus Entertainment Inc., 2018 Annual Information Form, page 23); in total these companies have more than 160,000 employees worldwide.

1.0 INTRODUCTION

1. BCE Inc. (Bell) is pleased to provide our input in the important process being undertaken by the Broadcasting and Telecommunications Legislative Review Panel (the Panel). As a major supporter of and investor in Canada's telecommunications and broadcasting systems and digital and creative economies, we hope in this submission to offer a unique, forward-looking, balanced, and practical perspective on the important issues the Panel will address in its report.

1.1 About Bell

2. Bell is Canada's largest communications company, leading the industry in providing world-class broadband communications services to consumers and business customers across the country. Our goal is to be recognized by customers as Canada's leading communications company.

3. Through brands such as Bell, Bell Aliant, Bell MTS, Virgin, Northwestel, and others, we offer a wide range of residential communications services including fibre-based Fibe TV and Fibe Internet, Connected Home services and home phone in seven provinces and three territories; and wireless services nationally. For businesses, we offer an unparalleled range of communications services across the country, including data hosting and cloud computing with the country's largest network of data centres. We also operate the most extensive network of retail outlets in the country, including national consumer electronics retailer The Source.

4. We are rapidly expanding Canada's broadband fibre and wireless network infrastructure with annual capital investments surpassing \$4 billion. At the end of 2017, Bell's fibre footprint reached approximately 9.2 million locations – including direct fibre-to-the-premises to more than 3.7 million homes and businesses while our long-term evolution (LTE) wireless coverage reached 99% of the Canadian population.

5. Bell Media is Canada's premier multimedia company with leading assets in television, radio, out-of-home and digital media, including the most popular television network (CTV), the most-watched specialty channels, including TSN, and Canada's premium streaming service, Crave. Bell is also a significant investor in Canada's iconic sports and entertainment institutions, including Maple Leaf Sports & Entertainment and the Montreal Canadiens.

6. We are also proud of Bell Let's Talk, the largest-ever corporate initiative supporting mental health in Canada. Launched in 2010, Bell Let's Talk promotes awareness and fights the stigma around mental illness through campaigns like the annual Bell Let's Talk Day and provides significant funding to care and access programs, and workplace mental health initiatives. Bell Let's Talk also supports research at Canadian Universities and hospitals. For example, our efforts have led to the establishment of the world's first and only anti-stigma research chair at Queen's University in Kingston, Ontario, the establishment of a chair for Adolescent and Youth Mood and Anxiety Disorders at Sunnybrook Hospital in Toronto, Ontario, the revitalization of the Douglas – Bell Canada Brain Bank and the creation of the new Centre for Translational Research and Mood Disorders and Suicide.⁵

1.2 Structure of our Comments

7. In Section 2, we review the success Canada has achieved in its telecommunications and broadcasting industries over the last century, and the recent and unprecedented explosion of competition in both of these areas. We also discuss the implications of these developments for the Panel's work.

8. In Section 3, we propose eight key recommendations for the Panel's consideration. These recommendations respond to the issues identified under each of the four themes highlighted in the Call for Comments. We highlight these because they are concrete, practical measures that could have a significant and in many cases immediate positive impact on communications in Canada.

9. In Section 4, we provide a detailed policy and competition analysis of the telecommunications industry in Canada and outline recommended changes for the *Telecommunications Act* and *Radiocommunication Act* to reflect this analysis.

10. In Section 5, we provide a similar policy and competition analysis for broadcasting and outline our recommended changes to the *Broadcasting Act*.

⁵ See <https://letstalk.bell.ca/en/>.

11. In Section 6, we discuss two issues related to administration and oversight – merger review and the availability of appeals and judicial reviews of administrative decisions – and set out recommended legislative changes related to these issues.

12. In addition, included with this submission are the following:

- Attachments 1, 2, and 3 are annotated mark-ups of the *Telecommunications Act*, *Radiocommunication Act*, and *Broadcasting Act* that show how we would propose to implement the recommended changes discussed in Sections 4, 5, and 6.
- Attachment 4 is a report from Gerry Wall that considers the issue of affordability with respect to Canadian mobile wireless and fixed broadband services. It examines three different measures of affordability and concludes that there is widespread availability of low-priced mobile wireless and fixed broadband services and as a result, there is no telecommunications policy concern with respect to the affordability of these services in Canada.
- Attachments 5-A, 5-B, and 5-C are reports from Charles River Associates that apply a rigorous economic analysis to markets characterized by either facilities-based competition or mandated resale regimes and conclude that mandated resale reduces network investment and access to advanced broadband networks without materially improving other outcomes for consumers compared to a reliance on facilities-based competition.
- Attachment 6 is a report from Armstrong Consulting that examines the current and expected trends in the economic structure and performance of the private television, radio and broadcasting distribution industries in Canada. The study highlights the challenges these industries face in maintaining their ability to continue to make a significant contribution to the production and distribution of Canadian content.

The study makes three key recommendations with respect to the current policy and legislative review. First, it should recognize that the economic performance of the traditional private broadcasting industry has reached an inflection point and is now on a downward trend. Second, the current legislative and policy framework should be expanded to explicitly take into account the rapid emergence of new market structures, new consumer behaviours, and new services and their capacity to contribute to

Canadian content. Third, policy and regulatory barriers that may inhibit the ability of traditional broadcasters to use their established resources and expertise to compete in the new broadcasting environment should be eliminated.

- Attachment 7 is a report from Peter Miller that reviews international developments in local television news. Among the conclusions reached are that local traditional media are in precipitous decline and digital media is not filling the vacuum. As result, local television news now requires some form of public funding or subsidy if it is to survive and ensure the continued diversity and coverage of local news, otherwise it is estimated that local television stations in small and medium-sized markets across the country will fade to black within four to five years. Moreover, Canada's democratic system is at risk of being dominated by foreign news platforms and unreliable sources that do not reflect Canadian values and interests.

The Miller Report makes several recommendations as to how to support local news, including that it must be of a sufficient magnitude to make a difference (for local television news, a magnitude of at least \$250 million annually); it must address the underlying shifts in revenues to non-contributing global platforms; it must be directed to the Canadian entities that produce and provide news to Canadians, based on reasonable and flexible criteria; and finally, support should not be considered "transitional" or have a fixed termination date.

- Attachment 8 is a copy of the 14 May 2018 Reply Comments made by the FairPlay Canada coalition in connection with its 29 January 2018 application to Commission.⁶ It summarizes empirical evidence on the piracy problem in Canada and the effectiveness of one of the solutions we are recommending to the Panel. It also definitively responds to false and misleading claims that certain individuals and organizations make regarding this issue.
- Attachment 9 is a report from Norman Gillan summarizing how access to municipal infrastructure has been accelerated in the United Kingdom through an effective statutory and regulatory framework, and highlighting lessons for Canada.

⁶ The attachments provided in connection with the 14 May 2018 Reply Comments can be found at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=273668&en=2018-0046-7&dt=r&lang=e&S=C&PA=T&PT=PT1&PST=A>.

2.0 CONTEXT AND THE TASK FOR THE PANEL

13. This review comes at a crucial time. As the Panel's Call for Comments identifies, the economic and technological models that characterize the communications industry have been radically transformed in recent years, with more competitors, more rapid technological advancements, more investment, and more complex consumer demands. At the same time, the public policy priorities reflected in the Panel's four themes – including widespread access to the modern telecommunications system and sustainable production and consumption of Canadian content – remain as relevant as ever.

14. Canada has had great success achieving these policy objectives in a country that covers 10 million square kilometers, operates in two official languages, and sits next to an economic and cultural powerhouse that is ten times its size. To continue this success in a transformed communications landscape will require drawing the right lessons from our history. It will require ensuring there remains a strong and stable foundation that actively encourages capital investment in Canada's digital economy; allows innovation and creativity to flourish unhindered; and applies proven approaches to the new environment. It will also require recognizing the crucial contributions Canada's communications industry makes to the country and committing to building on that success.

2.1 Canada has a long history of success in the communications industry

2.1.1 Networks that bring us together

15. Canada has long been a leader in connecting a widely-dispersed, low-density population to each other and to the world. Alexander Graham Bell first disclosed the idea for the telephone to his father in Brantford, Ontario in 1874. Two years later, the world's first long-distance telephone call was made from Brantford to Paris, Ontario. Four years after that Bell Canada was incorporated. The next year, we installed our first public telephone and placed the world's first international telephone call over a submarine cable.

16. During the next 25 years, we would build telephone service out to communities across the country. At the same time, hundreds of other telephone companies also built out local networks. This reliance on investment and market forces kick-started the telecommunications system in Canada. As the Commission has previously described:

Contrary to popular wisdom, we did not start out with the monopoly provision of telecommunications services in Canada. In addition to competing telegraph lines following the rights of way of competing railways, there was vigorous competition in the provision of local exchange services in many urban areas... in many regions, alternative suppliers popped up. In some cases, this was the result of inattention by Bell Canada, and in others, the response was purely entrepreneurial – the desire to offer a competing service that was either better or lower-priced.⁷

17. By 1932, the incumbent local exchange carriers (ILECs) in Canada had formed the Trans-Canada Telephone System, and as a result telephone services could be provided coast-to-coast across all-Canadian networks. For a country with the large land mass and small population of Canada, this was a significant feat. By 1958, Canada had a 6,400 km country-wide microwave network that transmitted telephone conversations, teletype messages, and television signals. In 1971, this would become the world's first domestic digital microwave network. Canada would soon have one of the first packet switched networks in the world and would launch Anik A, the first domestic geostationary communications satellite in the world. Later, Canada would have the world's largest contiguous cellular network and largest point-to-point asynchronous transfer mode (ATM) network. These developments were all the result of private sector investment and risk-taking.

18. Today, Canada's telecommunications industry continues to bring Canadians together from coast to coast to coast on world-leading wireless and fixed broadband networks. To illustrate the scope of what we continue to build as a nation, consider that:

- Our company first connected Grise Fiord, Nunavut – one of the most northerly settlements in the world, with a population of approximately 130 – to the public telephone network almost 50 years ago. This past summer, we began construction to extend our LTE wireless network to that community and more than a dozen others across Nunavut. That means a Canadian can access wireless service from the light house at Cape Spear, Newfoundland and Labrador; a sailboat in Lake Erie at Colchester, Ontario; along the Alaskan border at Beaver Creek, Yukon; and on the ice north of the Northwest Passage, all as part of their regular Bell Mobility or Virgin Mobile wireless plan. Our LTE network reaches 99% of Canadians while our LTE-Advanced network reaches 92% and can deliver world-leading peak speeds of up to 1.1 Gbps. Indeed, Canada's wireless networks consistently rate among the fastest in the world.

⁷ CRTC, *Canadian Telecommunications Policy Review – Discussion Paper* (15 August 2005).

- Despite our vast geography and small population, Canada has traditionally had among the highest penetrations of home phone service and the widest availability of cable broadband infrastructure anywhere in the world. Now, more than 130 years after first building copper networks, ILECs are building all-new fibre networks across the entire country – a generational digital infrastructure project. FTTP in Canada is on the verge of reaching 50% of households, already delivers the fastest consumer internet speeds in the world at 1.5 Gbps, and will continue to expand in the coming years. Meanwhile, an aggressive roll-out of new WTTN technology is closing the broadband access gap with 25 Mbps service (increasing to 50 Mbps) being made available in the near term to hundreds of thousands of rural Canadians, many of whom previously had no or inadequate access to broadband Internet at their home.

19. Canada's success in telecommunications was not inevitable, nor was it achieved as a matter of chance. Rather, it resulted from a series of deliberate decisions that promoted a strong and stable business and investment climate. For over a century, Canadian policy makers had the foresight to prioritize goals such as network quality and availability that were in the long-term interests of the country.

20. Our leading wireline and wireless digital infrastructure is the result of a strong commitment to the policy of facilities-based competition, favouring the long-term benefits it provides even at times when it might have been popular or politically expedient to adopt a different approach. For example, in the landmark 1997 local competition decision (Decision 97-8⁸), the Commission rejected the Unbundled Network Element – Platform (UNE-P) resale model of competition that had been adopted at one time in the United States and was advocated by a group led by Sprint Canada. The Commission also mandated access to local loops in urban areas for only a five-year period (though that period was later extended), with a view to supporting a transition to facilities-based competition. The Commission explained that "[w]hile resale competition can help promote the development of a competitive market, it is the Commission's view that the full benefits of competition can only be realized with facilities-based competition".⁹

⁸ Telecom Decision CRTC 97-8, *Local Competition*.

⁹ Decision 97-8, paragraph 237.

21. In our view, commitment to this policy must be strengthened and formalized through the Panel's review in order to keep Canada at the forefront of the digital economy and provide Canadians in all types of communities with continued access to the most advanced telecommunications infrastructure available.

2.1.2 Content that brings us together

22. Against great odds, Canada has also had enviable success nurturing a broadcasting industry that ensures Canadians in every region have the opportunity to tell and hear their own stories, while also having access to the best content from around the world. This success has had both technical and cultural components.

23. In the 1920s, radio stations were operated around the country by railways, religious groups, newspapers, and other entrepreneurs. Bringing these various stations together to allow Canada to speak with one national voice was a technical challenge. In the first national radio broadcast in Canada in 1927, Prime Minister William Lyon Mackenzie King noted that "[w]ithout the aid of the Bell Telephone Company of Canada, both in the matter of providing lines and in undertaking the engineering of the whole network, this broadcast would not have been possible".¹⁰

24. These technical contributions to Canadian broadcasting would continue, such as in 1953 when the first permanent telephone link between two countries brought programming from Buffalo, New York to the CBC in Toronto, Ontario and when Canadians watching different stations in different cities were first able to watch the same live programming at the same time. Later, Canada would be a leader in the deployment of cable television and then in advanced IPTV services. The investments in infrastructure and innovation made by Canadian companies have enhanced access to cultural content for Canadians and provided opportunities to showcase high-quality Canadian productions alongside the best content from around the world.

25. The primary challenges faced by Canadian broadcasting have not been technical, however, but cultural. Indeed, very early in the history of radio there was a significant concern that Canada might lose its distinct voice. This led to a series of reports and reforms that would

¹⁰ History of Canadian Broadcasting, "Bell Media Inc.", available online at http://www.broadcasting-history.ca/listing_and_histories/bell-media-inc.

result in a significant investment in public broadcasting and a system of licensing and obligations for private broadcasters, all designed to preserve a distinct Canadian broadcasting industry. As the Massey Levesque Commission recognized more than 60 years ago:

In the early days of broadcasting, Canada was in real danger of cultural annexation to the United States. Action taken on radio broadcasting by governments representing all parties made it possible for her to maintain her cultural identity.¹¹

26. Success in radio was replicated in each successive technological revolution. When OTA television was introduced in the late 1940s and early 1950s, likely hundreds of thousands of Canadians were watching American television channels before the first Canadian channel went on air. Undeterred, regulators licensed public and private Canadian broadcasters in markets across the country, ensuring Canadians had access to Canadian voices alongside American ones. This led to the creation of Canadian programs such as *Hockey Night in Canada*, *CTV National News*, *The National*, and *W5* that continue to inform and entertain Canadians today.

27. Through the 1970s and early 1980s, with the uptake of cable television, regulators again used their licensing power to provide opportunities for Canadian broadcasting and content within a global entertainment market. Canadian discretionary channels were licensed with obligations to support Canadian content; distributors had to prioritize the availability of Canadian services and sell them in conjunction with American channels to meet consumer demand; and American OTA stations could be retransmitted, but Canadian stations that had paid for Canadian broadcast rights to programs could substitute their advertisements. This has led over time to successful Canadian broadcasters that have supported productions ranging from popular local news, to comedies such as *Trailer Park Boys*, *Second City Television (SCTV)*, and *Letterkenny*, to dramas such as *Degrassi*, *Due South*, and *Orphan Black*.

28. In the 1990s, regulators wisely rejected the unimpeded entry of American satellite services, which had gained significant popularity, and used their licensing power to establish a Canadian DTH satellite industry that would provide the same access to consumers while continuing to support the country's cultural objectives.

¹¹ Canada, Report of the Royal Commission on National Development in the Arts, Letters and Sciences (Massey Levesque Commission, 1949-51), Chapter 18, paragraph 15.

29. Today, Canada is effectively the only country in the world in which there is both longstanding, widespread access to American and foreign channels including the big four American networks, as well as dozens of widely-viewed domestic services supporting a domestic content production ecosystem.

30. As in the case of telecommunications, success in broadcasting was far from inevitable. Indeed, the challenges faced by the Canadian broadcasting system were identified with great clarity by the Fowler Commission, undertaking a similar exercise to the Panel more than fifty years ago:

Broadcasting in Canada is also unique... One of the special factors affecting Canadian broadcasting is the sheer size of the country in relation to its population... From a commercial standpoint, the market that can be reached by a single television station in Chicago is approximately the same size as all the markets within range of the thirty-eight television stations in Canada... Add to these factors of space the further fact that the Canadian population is divided into about 11 million English-speaking and about 5 million French-speaking people, and the economic problem becomes still more difficult.

However, it is not our national size or sparse population that alone causes our difficulties in creating and maintaining a broadcasting system. The central, unique fact about Canadian broadcasting is that we are here in North America, a nation of 16 million people living beside a nation of 168 million which speaks the language of our majority and is rich, inventive, with a highly developed broadcasting system of its own. No other country is similarly helped and embarrassed by the close proximity of the United States. Much that is good and valuable can come from this closeness...

But as a nation we cannot accept, in these powerful and persuasive media, the natural and complete flow of another nation's culture without danger to our national identity. Can we resist the tidal wave of American cultural activity? Can we retain a Canadian identity, art and culture - a Canadian nationhood?¹²

31. Success was achieved despite these challenges because decisions were taken following the Fowler Commission and subsequent studies of the broadcasting industry to establish a framework that allowed it to succeed. This required periodic action to adapt regulatory measures to ensure that new technologies did not undermine the achievement of longstanding goals – indeed adaptation has been the hallmark of Canadian broadcasting policy. The recommendations of the Fowler Commission are even more relevant today and it should be no surprise that similar action is now required to maintain our success.

¹² Canada, Report of the Royal Commission on Broadcasting (15 March 1957), available online at http://publications.gc.ca/collections/collection_2016/bcp-pco/Z1-1955-37-1-eng.pdf, pages 7 and 8.

2.1.3 Direct contribution to Canada's economy

32. In addition to its contributions to the quality of life of Canadians, the productivity of Canadian business, and the cultural sovereignty of the country, the communications industry makes an invaluable direct contribution to the Canadian economy.

33. The Canadian companies directly regulated under the *Telecommunications Act*, *Radiocommunication Act*, and *Broadcasting Act* employ more than 160,000 employees worldwide, largely in the skilled, technical, and creative jobs that form the backbone of a modern economy.¹³ That is more people than are employed worldwide by Google, Facebook, Netflix, and Twitter combined.¹⁴

34. That number grows significantly if you also consider the other companies that are not directly regulated under these three statutes but would be directly affected by the Panel's recommendations, including the third parties that help construct and install broadband networks and the independent producers that partner with Canada's broadcasters. For example, our roll-out of FTTP in just three cities – Toronto, Quebec City, and Halifax – directly created more than 4,500 jobs at our company and our suppliers. The wireless industry in Canada alone is responsible for 138,000 jobs in each year¹⁵ and Canadian television production overall contributes 34,700 direct jobs annually.¹⁶

¹³ We employ approximately 52,000 people (BCE Inc., 2017 Annual Report, page 7); Telus has approximately 53,600 employees, including 25,700 employees in Canada (Telus, 2017 Annual Report, page 34-35); Rogers has approximately 24,500 employees (Rogers, "Company Overview", available online at <https://investors.rogers.com/company-information/company-overview/>); Quebecor has more than 10,000 employees (Quebecor, "Careers" available online at <https://www.quebecor.com/en/careers>); Shaw has approximately 10,000 employees (Shaw, 2018 Annual Report, page 2); Cogeco has approximately 4,500 employees (Cogeco Inc., 2018 Annual Report, page 6); Corus has approximately 3,200 employees (Corus Entertainment Inc., 2018 Annual Information Form, page 23); in total these companies have more than 160,000 employees worldwide even before accounting for employees of smaller and sometimes privately owned companies such as Eastlink, Xplornet, Westman, Pattison, ATN, etc.

¹⁴ Worldwide, Alphabet (including Google and all of its affiliates) has 94,372 employees (Alphabet Inc., Form 10-Q For the Quarterly Period Ended September 30, 2018, page 33); Facebook has 33,606 employees (Facebook, "Company Info", available online at <https://newsroom.fb.com/company-info/>); Netflix has 5,500 employees (Netflix Inc., Form 10-K for the fiscal year ended December 31, 2017, page 2); Twitter has 3,800 employees (Twitter, Q3 2018 Letter to Shareholders (25 October 2018), page 10); in total, these companies have approximately 137,000 employees.

¹⁵ Nordicity, *The Benefits of the Wireless Telecommunications Industry to the Canadian Economy* (July 2017) page1.

¹⁶ CMPA, *Profile 2017*, Exhibit 2-1 on page 23.

35. The number of jobs grows even further when you consider broader employment impacts in the communities where we invest. A study by economists Hal Singer, Kevin Caves, and Anna Koyfman of the actual impact of our deployment of FTTP in 39 regions over six years concluded that full FTTP deployment in a region is associated with an increase in employment of approximately 3%,¹⁷ while our ongoing deployment in Toronto, Ontario alone supports up to 19,000 jobs.¹⁸ Nationwide, Canadian television production (excluding feature films and foreign location service production) supports a total of 88,200 direct and indirect jobs.¹⁹

36. The same companies make a major contribution to Gross Domestic Product (GDP). For example, our fibre investment in Toronto, Ontario has the potential to contribute \$3 billion in incremental output for the Canadian economy²⁰, a result that is proportionately replicated in community after community. Similarly, the wireless industry contributes more than \$25 billion to GDP annually²¹ and film and television production in Canada contributes \$12 billion.²²

37. The companies directly regulated under the three statutes the Panel is reviewing also pay approximately \$10 billion or more annually in government fees and taxes²³ and invest approximately \$12 billion every year in capital expenditures to ensure Canadians have access to the best networks and content.²⁴

38. The Panel's review provides an opportunity to extend and build on all of these technical, cultural, and economic successes.

2.2 We are now in the industry's most competitive period in history

39. Canada's communications industry is in the most competitive period in its long history, largely as a result of two related factors. First, the forces outlined in the Call for Comments, including the "re-invention of the use of communications networks" and the "[d]igital disruption [that] has been transformational and global", have created the conditions for unprecedented competition among technologies, services, and domestic and international competitors.

¹⁷ Hal Singer, Kevin Caves, and Anna Koyfman, *The Empirical Link Between Fibre-to-the-Premises Deployment and Employment: A Case Study in Canada*.

¹⁸ Hal Singer, *Economic Impact of FTTH Deployment in Toronto*, page 3.

¹⁹ CMPA, *Profile 2017*, Exhibit 2-1 on page 23.

²⁰ Hal Singer, *Economic Impact of FTTH Deployment in Toronto*, page 3.

²¹ Nordicity, *The Benefits of the Wireless Telecommunications Industry to the Canadian Economy*, page 1.

²² CMPA, *Profile 2017*, page 4.

²³ Internal estimate based on companies' and regulators' reports.

²⁴ IDC, *Canadian Communications Service Provider Capex Spending*, 2017-18.

Second, policymakers have embraced these forces with a pro-competitive approach to regulation – in particular, a commitment to facilities-based competition in telecommunications and a commitment to continuously adapting the regulatory system to incorporate new technologies in broadcasting.

2.2.1 Telecommunications

40. The *Telecommunications Act* was enacted in 1993 to transition the industry to competition following almost a century of near-monopoly provision of traditional wireline telephony services. What was imagined at the time was primarily a form of regulatory-initiated competition for long distance and local access based on mandatory wholesale tariffs and network unbundling. What emerged in the ensuing 25 years was a stunning increase in competition across multiple telecommunications services that does not rely on regulation but rather market forces unleashed by competition between networks and from global OTT services.

Telephony

41. Telephony competition emerged primarily from three sources. The first is Canadian cable operators, who began offering home phone service in earnest in 2004. Within five years, nearly one third of Canadians with fixed telephony in their homes were served by a cable operator. Today, approximately 39% of homes with fixed telephony subscribe through cable.²⁵ The second was voice over Internet protocol (VoIP) service made possible by the roll-out, on both cable and ILEC networks, of broadband Internet. The final source of competition has been wireless providers. Wireless had supplanted landlines in only 2.5% of homes in 2003, and for many at that time it was conventional wisdom that wireless would not play a competitively meaningful role in respect of home phone service. Today, more than one third of Canadian homes are wireless-only.²⁶

²⁵ CRTC, *Communications Monitoring Report 2017* [CMR 2017], page 242.

²⁶ CRTC, *Communications Monitoring Report 2018* [CMR 2018], page 6.

Fixed Broadband

42. A similar story is playing out in broadband. In the 1990s, ILECs began offering Internet access services over their traditional networks. Subsequently, cable operators began upgrading their networks so they could offer Internet access services in competition with the ILECs. As a result, there were two wireline networks offering Internet access in the vast majority of Canadian homes. In this respect, Canada was particularly fortunate to have cable infrastructure in many more homes than most countries, creating a highly competitive broadband market from early in its development.

43. Given that cable networks had been built with higher-capacity coaxial, they quickly acquired a broadband speed advantage over ILECs' copper networks. This led ILECs to upgrade their networks by pushing out fibre closer to customers' homes with fibre-to-the-node (FTTN). ILECs began building brand new FTTP networks from the ground up – including entirely overbuilding massive areas in which they had previously built FTTN. This has produced intense competition between ILECs and cable operators along every dimension.

44. In the meantime, additional competitive networks have emerged to enhance the choices available to consumers and extend broadband access to additional households. Beyond their local cable operator and ILEC, almost every Canadian now has access to mobile wireless services from at least two additional facilities-based competitors offering comparable data speeds to the fixed line alternatives. Today, many households use mobile wireless as a substitute for fixed home Internet and the number is growing quickly.²⁷ The experience with wireless telephony demonstrates that mobile wireless will become a key competitive substitute for fixed line broadband service well within the next few decades when the revised *Telecommunications Act* would apply.

45. Fixed wireless service also delivers an increasingly attractive competitive alternative to wireline broadband. Not only is it expanding broadband choice to rural homes with few broadband options today (as in the case of our WTPP program²⁸), but it can deliver home broadband access in urban areas in competition with traditional wired offerings. Indeed, in the

²⁷ Deloitte, *Mobile Only: wireless home Internet is bigger than you think* (2017), available online at: <https://www2.deloitte.com/content/dam/Deloitte/global/Images/infographics/technologymediatelecommunications/gx-deloitte-tmt-2018-mobile-home-internet-report.pdf>.

²⁸ This program will see broadband expanded to 800,000 homes in the near term.

United States, Verizon is marketing a wireless home Internet service (sometimes referred to as "wireless fibre") with typical speeds of 300 Mbps and unlimited usage. The initial target markets for Verizon's service are distinctly urban: Los Angeles, Houston, Sacramento, and Indianapolis. Canada is fortunate that its providers continue to choose to build FTTP to urban communities (where ILECs in the United States have often largely abandoned FTTP investment) – as well as many rural ones – facilities-based competitors can be expected to introduce fixed wireless alternatives in either urban or rural areas if there is a competitive gap.

46. In some areas in Canada third parties are building FTTP networks to create a third wireline network to the home, for example, Beanfield in the Toronto area and Novus in the Vancouver area. This further enhances the industry's competitive dynamic. In addition, the new ViaSat-2 satellite, which was launched in 2017 and put into service in 2018, can provide satellite broadband at up to 25 Mbps across Canada.

47. Despite multiple, strong facilities-based alternatives in the market, the Commission has continued to support a style of competition that relies on mandated access. This has involved providing resellers with an increasingly attractive arbitrage opportunity, dramatically reducing wholesale rates, and ceding to demands for new forms of access – all on a risk-free basis and without any expectation that they contribute to Canada's digital infrastructure. As a result, resellers now account for 13% of Internet subscribers nationally and they have captured between 36% and 55% of net subscriber additions in recent years.²⁹ In Ontario and Quebec, where they have focused their efforts, resellers have secured a subscriber market share of more than 20%.³⁰ Despite benefitting from a regulatory regime that supports these large growth rates and hundreds of competitors, all resellers together in total have contributed less than one-half of one percent of wireline capital investment in Canada over the last five years.³¹

48. Historically, resale competitors have primarily grown by narrowly winning over specific segments of the market. That was, however, largely before recent changes to the regulatory environment (including reduced access rates and the extension of mandated access to FTTP) were put in place. This dramatic swing of the pendulum away from facilities-based competition

²⁹ CMR 2018 – Retail Fixed Internet Sector and Broadband Availability, page 5 and 7.

³⁰ Resellers accounted for 13% of subscribers nationally and 93% of resellers' customers were in Ontario and Quebec. Based on the distribution of Internet households in Canada, this implies that resellers account for at least 20% of subscribers in Ontario and Quebec. See CMR 2016, Figure 5.6.3 and CMR 2018, Figures 5.1 and 5.6.

³¹ CMR 2017, page 219.

and toward a regulatory-dependent environment will inevitably result in a significant and lasting reduction in private investment and loss of the benefits of facilities-based competition.

Wireless

49. Competitive intensity also continues to grow in wireless. In 1993, there were just two facilities-based competitors and two wireless brands, each offering effectively the same types of wireless plans. On this basis, the Commission forbore from regulating retail and wholesale wireless services across the country – unleashing a period of prolonged and significant growth and innovation. Today, there are four facilities-based competitors competing aggressively with 10 or more wireless brands in every region of the country, offering a full range of price points, network speed and coverage options, pre-paid and post-paid alternatives, and usage profiles to meet every consumer's need.

50. Policy-makers in Canada have put ten years of concerted effort and billions of dollars in public subsidies into the introduction of a fourth facilities-based competitor. While it is not clear that the benefits of this policy will ever outweigh the costs, the policy has taken hold. Wireless market entrants now have strong financial backing as part of well-capitalized companies with large multi-product subscriber bases and continue to have opportunities to acquire new spectrum. They are improving their networks and product offerings, and planning the launch of additional brands to compete even more effectively in additional segments of the market.³²

51. Analysts have recognized that competition in wireless will grow even more intense in the coming years:

We believe increased competition in Canada is among the key reasons behind the decline in ABPU growth. This change in the competitive landscape can be seen in continued aggressive pricing, incumbents' increased focus on prepaid... Market share estimates for 2019 are similar to our expectations for 2018, with the notable exception that new entrants are expected to attract 2% more market share in 2019 (28.4%) vs 2018 (26.2%). This also represents a notable lift vs the 17.6% added in 2017. Despite SJR's [Shaw Communications, owner of Freedom Mobile] much more limited network coverage, we believe its aggressive offers,

³² Ian Hardy, "Shaw registers Shaw Mobile, Shaw Mobility, and Shaw Wireless trademarks: Could a new wireless carrier be in the works?" *MobileSyrup* (21 September 2017), available online at <https://mobilesyrup.com/2017/09/21/shaw-registers-shaw-mobile-shaw-mobility-shaw-wireless-trademarks/> and Emily Jackson, "Quebecor testing new low-cost wireless brand named Fizz" *Financial Post* (13 September 2018), available online at <https://business.financialpost.com/telecom/quebecor-testing-new-low-cost-wireless-brand-named-fizz>.

such as low pricing and free-of-charge 100GB data add-ons, enable the company to load subscribers at a similar rate to incumbents, although not at the same ABPU. Moreover, SJR is continuously working to increase its LTE coverage, which was facilitated by the recent deployment of 700MHz spectrum. We also expect QBR to add more wireless subscribers in 2019 vs 2018 (147,000 vs 140,000) as the company recently demonstrated its focus on broadening its subscriber base rather than on increasing monetization of the current base.³³

We expect the launch of Fizz will have a positive impact on overall growth that the market has not fully appreciated. By expanding wireless into the flanker segment with innovative features (e.g., rollover data), QBR [Quebecor, owner of Videotron] is addressing a market segment that it has not effectively targeted in the past. We estimate the flanker wireless segment represents approximately 25% of the total wireless market. We believe Fizz could drive higher subscriber growth, especially at the time of its launch.³⁴

52. Meanwhile, the increasingly ubiquitous presence of Wi-Fi in private and public spaces, combined with the mainstream use of OTT calling applications (FaceTime, Whatsapp, Skype, Facebook Messenger, etc.), gives consumers additional alternatives when selecting a wireless plan and an additional competitive dynamic to the market.

2.2.2 **Broadcasting**

53. When the revised *Broadcasting Act* was introduced in Parliament in 1989, Parliamentary Secretary Jim Edwards explained one of the key changes:

The present Broadcasting Act is 20 years old and out of date. Its description of broadcasting is based on only one of the technologies presently used to distribute broadcast signals... To meet the challenge of the next century we have broadened the wording of the Act so that it applies to all broadcasting technologies and holds all broadcasters responsible for implementing Canadian broadcasting policy. [emphasis added]³⁵

54. This change reflected the evolving habits of Canadians, who primarily accessed television through cable rather than OTA. Since then, in tandem with the telecommunications sector, the broadcasting sector has grown more competitive than could possibly have been envisioned.

³³ Desjardins, "2019 outlook – the four-way wireless dance" (18 December 2018).

³⁴ Scotiabank, *Focus 2019 – Telecommunications Services & Cable* (13 December 2018)

³⁵ Canada, Parliament, House of Commons Debates, 34th Parl., 2nd Sess., Vol. 4 (3 November 1989) at 5564.

55. On the distribution side, cable was in the 1980s effectively a monopoly supplier of television distribution services. This was particularly true when discretionary services were introduced, as these were not available OTA. Subsequently, new delivery platforms emerged to fiercely contest this market.

56. In 1997, the Commission adapted its regulatory framework to license DTH satellite providers and both Bell and Star Choice launched service across Canada. That brought competitive rivalry to the Canadian television distribution market for the first time. Around 2010, ILECs in Canada began to launch IPTV services, further increasing the alternatives available to consumers, and kickstarting a dynamic competitive battle to build the highest quality television offerings.

57. In the last ten years, broadband service in the vast majority of Canadian homes has become sufficiently robust to support the OTT delivery of any type of content. This has been a sea change, increasing the number of potential television distribution competitors from about four (cable, ILEC, and two satellite alternatives) to the effectively infinite number that could be available on the Internet. Today there are at least 20 major foreign OTT television services available in Canada with between 5 and 10 more expected to launch in the near future.³⁶ Approximately 55% of Canadian households now subscribe to these services.³⁷ So far, the Commission has not brought these services within the framework of its cultural regulations (as it did for cable, satellite, and IPTV services as they emerged), with the result that this massive segment of the competitive landscape has been given an unwarranted regulatory advantage which undermines the ability of the regulated ecosystem to deliver on the important objectives in the *Broadcasting Act*.

58. The expansion in television distribution infrastructure and mainstream adoption of OTT offerings has also increased competition among programmers in several ways. First, improvements in cable, DTH, and IPTV services, facilitated by increasingly open licensing by the Commission, multiplied the number of traditional linear channels that could compete in the Canadian market to the hundreds. These channels competed aggressively for programming, audiences and advertisers. Since the launch of Netflix in Canada and internationally in 2010,

³⁶ For example, Netflix, Amazon Prime, CBS All Access, BritBox (BBC), Hayu (NBC), and DAZN are available in Canada today and Disney Play, Amazon Channels, and longform video offerings from YouTube, Facebook, and Apple are expected to launch here in the short term.

³⁷ See Armstrong Report, page 22.

OTT services have quickly created a global market: new programmers with global scale have entered Canada (e.g., Netflix, DAZN); traditional suppliers to Canadian broadcasters have chosen to go directly to Canadian audiences (e.g., CBS All Access); and existing Internet giants with large Canadian user bases have begun competing for programming and audiences as a loss leader or other adjunct to their primary businesses (e.g., Amazon, YouTube, Facebook).

59. Moreover, the nature and the stakes of this competition have escalated dramatically. As Matthew Ball, the former Head of Strategy at Amazon Studios, has described:

Even when underestimated, Netflix's ever-escalating, industry-leading content spend remains a point of fear and fascination in the media industry. Each year, Netflix's subscriber base and revenues grow (an average of 29% and 35% over the past five years), but its content spend grows faster (39%). And as the company has embraced its streaming business and washed its hands of its profitable DVD business (which Netflix stopped marketing in 2013), cash losses have swelled. In 2014, Netflix generated \$16MM in cash from operating activities, but by 2017, it was losing \$1.8B. In 2018, cash burn is expected to grow to \$3-4B and CEO Reed Hastings has promised negative free cash flow will persist for "many years." The company also reports more than \$9.1B in debt payment obligations (up 93% year-over-year) and has \$18B in content obligations (up 27%).

... Netflix's goal is to have more subscribers than any other video service in the world, and to be the primary source of video content for each of these subscribers. The company doesn't want to be a leader in video, or even *the* leader in video – it wants to monopolize the consumption of video; to become TV. [emphasis added]³⁸

60. In other words, the television industry is in a phase of competition-for-the-market justifying massive content spending in an effort to build an unassailable position. This results in an unprecedented competitive landscape which has not yet been reflected in the regulatory framework.

61. The broadcasting sector that has been hardest hit by the increasingly competitive media environment is local television, and in particular, local news. Already competing for audiences and advertising with radio, newspapers, and out-of-home platforms, the Internet has fragmented viewer time and attention and, most of all, advertising budgets even further. Under the current legislative framework, advertising is the only source of revenue available for local television

³⁸ Matthew Ball, "Netflix Isn't Being Reckless, It's Just Playing a Game No One Else Dares (Netflix Misunderstandings, Pt. 3)" *REDEF* (8 July 2018), available online at <https://redef.com/original/netflix-isnt-being-reckless-its-just-playing-a-game-no-one-else-dares-netflix-misunderstandings-pt-3>.

stations. Yet, once news is produced, consumers have a virtually unlimited ability to access it online at no cost, and with growing advertising revenue flows to global Internet platforms. As a result, local television stations now regularly lose money in most markets.³⁹

62. Unfortunately, this explosion in competitiveness has not extended to the on-the-ground production of credible, authoritative, and trusted local and national news and original reporting. Indeed, the closure of some community newspapers and television stations and the scaling back of newsrooms in almost all others in this competitive environment is threatening a bedrock component of our democratic culture. Social media and other Internet platforms have increased the diversity of perspectives available to Canadians and their ability to communicate to each other and the world. They have not and will not, however, replace the role that professional and trusted local and national television news plays in informing and creating common ground among Canadians.

63. The reality is that the intensely competitive environment for audiences and advertising has resulted in a situation where there are perhaps fewer sources of reliable local and national news than ever.

2.3 Implications for the Panel

64. Canada's success and the emergence of unprecedented competition that was not anticipated when the Acts were last reviewed have important implications for the Panel's work.

65. In telecommunications, the challenge the Panel faces is to move from the detailed economic regulation of retail and wholesale markets envisioned under the 1993 *Telecommunications Act*, to an approach that recognizes the primary role now played by facilities-based competition. We believe this can be done while also ensuring the Commission has the ability to impose flexible, tailored regulatory measures that address any remaining areas of significant market power or non-economic social policy goals.

66. Such a regime must encourage Canadian companies to make the massive investments of private capital necessary to build Canada's next generation of telecommunications networks, which in turn drive innovation and increased competitiveness that benefits all Canadians. To do

³⁹ Armstrong Report, page 4.

so, it must recognize that expanding below-cost, risk-free access to these networks for non-facilities-based competitors (which number in the hundreds but make less than one half of one percent of telecommunications investment in Canada) puts the necessary investment, and the build-out of next generation networks, at risk.

67. In broadcasting, the Panel must ask itself why there is a comprehensive regulatory regime providing for a single Canadian broadcasting system. The answer is not that broadcasting markets require special economic or consumer protection regulation unique from all other markets, but that regulation of broadcasting markets is the most effective way to meet Canada's cultural policy objectives.

68. In that context, regulating only the traditional Canadian players is no longer a viable option. To do so will lead to the collapse of the Canadian broadcasting system and undermine Canada's cultural objectives. The challenge in broadcasting is, therefore, similar to the one that faced the Fowler Commission and all other policy-makers since: how can the best content from around the world be integrated into a Canadian broadcasting system that achieves Canada's cultural objectives by supporting the ongoing creation and discoverability of Canadian content? In 2019, there is also an additional challenge: how can we ensure that local television stations continue to conduct the local journalism that plays a critical role in our democracy? The following sections provide our inputs on these important questions.

3.0 PUBLIC POLICY PRIORITIES FOR CANADA

69. Later in this submission, we provide a detailed discussion of the telecommunications and broadcasting markets, including key facts and recent trends, and propose a comprehensive set of reforms to the *Telecommunications Act*, *Radiocommunication Act* and *Broadcasting Act*. Our proposed reforms are designed to address the wide range of key challenges and opportunities presented by the new communications landscape.

70. However, among these reforms eight priorities stand out, each addressing at least one of the four public policy themes identified by the panel.

Access to advanced telecommunications networks

1. Presumptive support for facilities-based competition
2. Accelerate access to municipal infrastructure

Support for Canadian content

3. Eliminate the regulatory advantages given to foreign services
4. Fix the local TV business model to support news journalism
5. Combat content piracy

Improve the rights of digital consumers

6. Avoid prescriptive cybersecurity rules that inhibit industry responses to cyber threats
7. Close the Internet platform privacy gap

Renew the institutional framework

8. Create oversight for telecommunications regulation

71. In this section, we explain each of these reform priorities.

3.1 Priority 1: Presumptive support for facilities-based competition

72. The principle of facilities-based competition recognizes two realities. First, that the competition that most benefits consumers is multi-dimensional and must include investment and innovation directed at improving and expanding networks and lowering network costs over time. This provides better value products and services to more people over the long term.

73. Second, it recognizes that, from a business perspective, investments in expanding or upgrading a network are justified by the opportunity to reach new customers or offer a quality of service that your competitors cannot. If the benefits of an investment must immediately be shared with competitors, one of the primary justifications for the investment is eliminated and the incentive to make it is reduced or eliminated.

74. When considering Canadians' access to the most advanced telecommunications networks, the first and fundamental objective must be to ensure that the latest network technologies (currently FTTP and WTTN and soon 5G) are available in as many communities as possible as quickly as possible. In pursuing this objective, there is no substitute for facilities-based competition – telecommunications investment in Canada totals nearly \$12 billion each year, of which more than 99% is private investment by full facilities-based providers.⁴⁰

75. These investments and the benefits they provide to Canadians are put at risk when they are taken for granted by regulation and the regulatory pendulum swings too far away from facilities-based competition and towards mandated access. This is particularly the case where the mandated access applies to networks that are not even fully built, as is the case with FTTP, or that are still in the design and testing phase, as is the case with 5G.

3.1.1 Facilities-based competition supports the roll-out of advanced telecom networks across Canada

76. The process by which facilities-based competition makes advanced telecommunications networks available to Canadians has been concisely illustrated in the broadband market. With cable networks having a broadband speed advantage due to their higher capacity coaxial cable infrastructure in the early 2000s, ILECs invested significantly in FTTN. In response, cable companies upgraded their facilities. ILECs then shifted focus to building almost exclusively FTTP facilities, including overbuilding areas in which FTTN networks had only recently been built, in order to compete more effectively.

77. For Bell, this competitive cycle led to the August 2015 launch of our Gigabit Fibe service delivering Internet speeds up to 1 Gbps. Because cable companies could not simply coopt the benefits of that service but rather were engaged in dynamic facilities-based competition, they rushed to launch similar speeds themselves. Rogers announced in October 2015 that it would start offering 1 Gbps download speeds. Similarly, Eastlink launched its Gig Internet business around November 2015 and in June 2017 expanded the service to additional regions in Nova

⁴⁰ CMR 2017, page 219.

Scotia, Ontario and British Columbia.⁴¹ Quebecor and Cogeco also launched a similar service in 2016.⁴² For Cogeco, this has included building FTTP networks.

78. The process of dynamic facilities-based competition, however, never ends. To again seize a clear network advantage, in the fall of 2018 we launched 1.5 Gbps Internet service – the fastest residential Internet service in the world – and prepared to rapidly expand its roll-out across our footprint.⁴³ Competitors will have to respond, and Canadians will continue to benefit from the robust advanced broadband infrastructure that results. Meanwhile, having built out the vast majority of an entirely new network before signing up a single customer⁴⁴, we have every incentive to compete vigorously for customers in order to utilize the capacity. Similarly, our cable competitors respond with both network investments and their own aggressive retail offers. These dynamics result in highly competitive retail offerings for consumers.⁴⁵

79. As in the case of broadband deployment and competition, in the last 25 years in Canada facilities-based competition has been responsible for: the vast majority of popular alternatives to home phone service; the investments that have delivered world-leading speeds on Canadian wireless (up to 1.1 Gbps) and FTTP (up to 1.5 Gbps) networks; the roll-out of those networks to as many people as possible as quickly as possible (99% for Bell LTE, 92%+ for Bell LTE-Advanced, and approaching 50% for FTTP); and the roll-out of WTTP to hundreds of thousands of homes in the next few years to close the broadband gap. Looking forward to the continued roll-out of FTTP and WTTP and the ongoing evolution of mobile networks to 5G, continued regulatory commitment to facilities-based competition will be essential to sustaining the private investment required to ensure Canadians have widespread and timely access to robust next generation networks that will enhance their participation in the digital economy and international competitiveness.

⁴¹ Eastlink, News Release, "Eastlink expands Gig Internet availability to more communities across Canada" (19 June 2017), available online at <https://www.eastlink.ca/about/mediacentre.aspx?NewsId=1168>.

⁴² Rose Behar, "Videotron launches gigabit internet service in Quebec" (29 June 2016), available online at <https://mobilesyrup.com/2016/06/29/videotron-launches-gigabit-internet-service-in-quebec/>; "Cogeco switches on amazing 1GB Internet Service" (23 November 2016), available online at <https://www.cogeco.ca/corpo/ccs/showMedia.php?mediaSourceId=4465>.

⁴³ BCE Inc., News Release, "BCE reports second quarter 2018 results" (2 August 2018), available online at <http://www.bce.ca/news-and-media/releases/show/BCE-reports-second-quarter-2018-results-1?page=1&month=&year=>.

⁴⁴ As a technical matter, FTTP networks are pre-constructed and then almost fully installed before customers can be signed up.

⁴⁵ See e.g., David Paddon, "Bell, Rogers slash prices of gigabit-speed internet in bid to woo customers" *Canadian Press* (July 5, 2018).

80. The incentives created by facilities-based competition are particularly important for rural and remote communities (and for high-cost neighbourhoods in suburban and urban centres), where the business cases for investments like FTTP and 5G are challenging.

81. For example, the facilities-based competition framework that was in place for FTTP meant that the earliest locations to be built in the then Bell Canada and Bell Aliant territories were not just Quebec City, Fredericton, and St. John, but also Quispamsis, New Brunswick (population 17,886) in 2010.⁴⁶ The second city in Bell Canada's territory in which FTTP was announced was Kingston, Ontario. We have now built FTTP covering over 65% of households in Atlantic Canada, to communities as small as Stephenville, Newfoundland and Labrador (population 6,719) and Salisbury, New Brunswick (population 2,208). We have also built FTTP in communities as remote as Saint-Félicien, Quebec (population 10,278) and Cobalt, Ontario (population 1,133), with additional communities like Churchill, Manitoba (population 899) already announced. It is not at all clear that FTTP can continue to be built out to such communities now that mandated access to FTTP has come into effect under the Commission.

3.1.2 Policy consensus supporting facilities-based competition

82. Given the success that facilities-based competition has delivered, it is not surprising that there is a consensus among the Commission, the Competition Bureau, and the Government in support of that policy:

Facilities-based competition is beneficial because such competition is most likely to lead to robust and effective long-term competition... service providers that control their own end-to-end networks have greater incentives for investment, innovation and cost efficiency."⁴⁷

The Commission is of the view that efficient and effective competition will be best achieved through facilities-based competitive service providers... the full benefits of competition can only be realized with facilities-based competition."⁴⁸

⁴⁶ Bell Aliant, Press Release, "FibreOP™ services poised to expand across NB - more customers able to experience ultimate broadband experience", issued 8 February 2010.

⁴⁷ Competition Bureau, Submission in Telecom Notice of Consultation CRTC 2013-551, *Review of wholesale services and associated policies* (27 June 2014), page 4.

⁴⁸ Decision 97-8.

The Commission believes that fostering facilities-based competition is the most appropriate way to ensure high-quality, affordable service, as well as innovation and service differentiation."⁴⁹

Facilities-based competition, in which competitors primarily use their own telecommunications facilities and networks to compete instead of leasing from other carriers, is typically regarded as the ideal and most sustainable form of competition."⁵⁰

The Commission does not consider that resale and sharing, absent facilities-based entry, would provide a sufficiently sustainable form of competition."⁵¹

[T]he Governor-in-Council considers that facilities-based competition is a durable form of competition that delivers the greatest benefits to consumers, imposes competitive market discipline on incumbents and strengthens investment in telecommunications infrastructure."⁵²

The department also agrees with the Panel's assessment that measures which enable dynamic entry, viable multiple providers and market incentives for innovation are important if Canada is to continue to develop an efficient and vibrant wireless industry... policy measures which seek to foster facilities-based wireless competition are consistent with the government's policy to rely on market forces to the maximum extent feasible."⁵³

⁴⁹ Telecom Decision CRTC 2002-34, *Regulatory framework for second price cap period*, paragraph 155.

⁵⁰ Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies* (TRP 2015-326), paragraph 5.

⁵¹ Telecom Decision CRTC 92-12, *Competition in the Provision of Public Long Distance Voice Telephone Services and Related Resale and Sharing Issues*.

⁵² Order in Council P.C. 2007-71.

⁵³ ISED, *Policy Framework for the Auction for Spectrum Licences for Advanced Wireless Services and other Spectrum in the 2 GHz Range* (November 2007).

83. In support of this policy consensus, the evidence is clear that facilities-based competition remains the best form of competition. As Margaret Sanderson and Matthew Cormier of Charles River Associates conclude in their study (CRAI 2018 Report) provided as Attachment 5-A:

In sum, we find that the Commission's conclusion that facilities-based competition is the best form of competition continues to hold. With higher levels of cableco and telco competition in fixed broadband there is little need for additional wholesale access regulation. Competition between facilities-based competitors results in greater private sector investment, which in turn means reduced need for public subsidy of broadband networks in order to achieve high NGA penetration. High-speed internet penetration rates and higher average download speeds are positively correlated with NGA penetration levels. The result is better broadband performance is delivered with facilities-based competition and not access regulation.⁵⁴

3.1.3 Mandated access undermines investment without improving outcomes

84. The alternative to facilities-based competition is resale competition, and mandated access (i.e., mandatory tariffs that allow resale competitors to use existing networks at regulated rates) is the regulatory mechanism that supports resale competition. In theory, regulators may impose mandated access in the hope that it will expand competitive choice in the retail market where there is not already widespread or effective competition between facilities-based providers and where facilities-based competition cannot be achieved through policy.

85. The empirical evidence confirms what common sense suggests: that mandating access where there are competing facilities-based providers reduces investment without materially improving even the short-term offerings available to consumers.

- In a 2007 study, attached as Attachment 5-B, Moya Dodd, Paul Reynolds, Margaret Sanderson and Nick Berger-Thomson of Charles River Associates (CRAI 2007 Report) found that facilities-based competition delivers better outcomes for consumers than mandated access and that layering mandated access on top of facilities-based competition does not materially improve outcomes. The CRAI 2018 Report, which is a follow-up study to the CRAI 2007 Report, finds that mandated access reduces the availability of next-generation broadband networks.

⁵⁴ Attachment 5-A, Margaret Sanderson and Matthew Cormier, *Delivering Better Broadband Performance: Facilities Competition vs. Access Regulation* (December 2018) [CRAI 2018 Report], paragraph 85.

[C]ountries that had limited competition between cablecos and telcos for fixed broadband services in 2007, and hence adopted extensive wholesale access regulatory regimes, have not delivered the same levels of broadband investment and NGA deployment as the United States and Canada that had the highest rates of end-to-end facilities competition in 2007. Countries without the investments driven by facilities-based competition have sought to achieve higher NGA deployment with substantial public sector investments.

Canada is an outlier in having the lowest level of per capita public sector investments in broadband, yet one of the highest NGA deployment levels with commensurate high levels of high-speed broadband penetration and high average download speeds.⁵⁵

- The CRAI 2018 Report also summarizes numerous empirical studies and concludes:

It is generally accepted by academics and national regulators alike that the best market outcomes are the result of end-to-end facilities-based competition instead of access-based competition. Despite the goal of promoting future facilities-based competition by allowing entrants to climb the “ladder of investment”, there is little empirical support in the literature of new entrants fully climbing the ladder in order to compete against incumbents through the construction of their own facilities. Some studies have found that access regulation improved the initial deployment of broadband, with these benefits dissipating in the years following. However, the empirical literature generally shows that the stronger is access regulation, the less both incumbents and entrants invest, which is counter to the regulatory agency’s original objective of spurring competition in fixed broadband. Furthermore, adoption of next generation technologies is negatively correlated with the amount of wholesale access.⁵⁶

- In a September 2017 study attached as Attachment 5-C, Margaret Sanderson of Charles River Associates (CRAI 2017 Report) also found that mandated access in wireless and specifically mandating certain Mobile Virtual Network Operators (MVNOs) is associated with significant reductions in wireless investment without delivering corresponding benefits for consumers (such as increased wireless penetration).
- When the Commission mandated wholesale access to services enabled by FTTN facilities in 2010, the result was that FTTN was rolled out to approximately 400,000 fewer homes in our territory than planned over the two subsequent years. As FTTP is significantly more expensive to build than FTTN, the impact of mandated access will be that much more dramatic.

⁵⁵ CRAI 2018 Report, paragraphs 82 to 83.

⁵⁶ CRAI 2018 Report, paragraph 54.

- In 2014, Bell Aliant approved a business case to build FTTP in 21 communities. When, following those builds, it modified the location-specific footprint prioritization model used in the business case to reflect mandated wholesale access, the Net Present Value (NPV) of the investment in 9 of the 21 communities turned negative. In other words, 9 of the 21 communities would not have been built if there had been mandated FTTP access at the time the business case was approved. Such a result is simply an unavoidable outcome when dealing with a business case that involves building brand new access networks, achieving significant penetration at the retail level, and earning retail revenue streams from multiple services to support the broadband home. Mandated access undermines every one of these core elements of the underlying business case.

86. Network investment and deployment do not stop entirely in response to mandated access. However, mandated access reduces the pace and extent of deployment for advanced telecommunications networks. This outcome has been confirmed by the experience in Canada and elsewhere. In particular, the greater the role of mandated resale in a market, the more network deployment suffers. A focus on mandated resale, therefore, is antithetical to the goal of ensuring as many Canadians as possible have access to advanced telecommunications networks.

3.1.4 Effective model for supporting facilities-based competition

87. The most important thing the Panel can do to support facilities-based competition is to align the approach in Canada's *Telecommunications Act* with the economic consensus that is reflected in the rules of other major jurisdictions by eliminating the presumption that all retail and wholesale services are regulated *ex ante* (i.e., unless they have specifically been forborne). Instead, the *Telecommunications Act* should provide for regulatory intervention only *ex post*, where the Commission determines in response to a complaint that the party to be regulated has significant market power (SMP) in the relevant market. SMP is the standard test employed in other jurisdictions before regulation is imposed (e.g., under the EU Framework Directive)⁵⁷ because in the absence of SMP there can be no economic justification for regulation.

⁵⁷ Directive 2002/21/EC. Under this directive the European Parliament and Council of the European Union (EU) require national communications regulators to only intervene in the market where one or more providers has SMP, based on competition law principles. A comprehensive set of guidelines directing national regulators on how to assess SMP has also been published: see *Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services*, 2018/C 159/01.

88. This change would modernize the *Telecommunications Act*, making it consistent with the market situation in Canada in 2019 and beyond. The existing requirement to supply all retail and wholesale services on a regulated, tariffed basis unless they have been forborne reflects the fact that in 1993, with the exception of the fledgling wireless industry, very few consumer-oriented telecommunications services were subject to any material facilities-based competition. Today, of course, there are multiple strong facilities-based competitors for every type of service.

89. Indeed, precisely this type of reform was recommended by the Telecommunications Policy Review Panel in 2006,⁵⁸ and the evidence supporting such a change has only grown since that time.

90. In conjunction with this change, the Panel should ensure that the remedies that can be applied by the Commission are more flexible than the current tariff structure. In particular, the Commission should be empowered to restrict the classes of companies that can take advantage of any mandated access that must be provided. This would allow the Commission to ensure that companies that should be able to invest in infrastructure that benefits Canadians do so. For example, in wireless the Commission could restrict mandatory roaming access to regional carriers and thereby prevent the largest carriers from roaming on their competitors' networks to expand their coverage rather than building out their own networks. Such a policy, which the Commission has adopted but Innovation, Science and Economic Development Canada (ISED) has not, would increase the robustness of Canadian digital infrastructure and create greater competitive alternatives for Canadians. Similarly, even if the Commission intended to maintain mandatory wholesale access for broadband it could require global giants that may wish to offer network services in Canada to invest in infrastructure here or reach voluntary commercial arrangements with those who do, rather than to freeride on the investments of Canadian companies.

91. In Section 4, we discuss the other changes to the policy objectives, the structure of the undue preference process, and the approach to rate-setting that would also provide important support for facilities-based competition – and by extension for Canadians' access to advanced telecommunications networks.

⁵⁸ Telecommunications Policy Review Panel, *Final Report 2006*, section 3-12.

92. The two changes proposed here, however, would most strongly support the stable business and investment climate that is a key factor in securing the widest and fastest possible roll-out of advanced telecommunications networks to Canadians. Enshrining the practical application of the existing policy of facilities-based competition would in this way maximize the benefits of competition for Canadians while retaining the Commission's ability to impose tailored regulatory measures designed to address specific problems.

3.2 Priority 2: Accelerate access to municipal infrastructure

93. Deploying advanced broadband networks requires extensive access to municipal rights-of-way. Canadian carriers and distribution undertakings are currently permitted to enter on and break up any public place for the purpose of constructing, maintaining or operating its transmission lines, and may remain there as long as necessary for that purpose, provided that they do not unduly interfere with the public use and enjoyment of the public place (section 43(2) of the *Telecommunications Act*). However, section 43(3) of the *Act* requires Canadian carriers and distribution undertakings to obtain the consent of a public authority to construct a transmission line on public lands. Under the current section 43(4), a Canadian carrier or distribution undertaking that cannot obtain the consent of a public authority to construct its transmission line under reasonable terms may apply to the Commission for permission to do so.

94. Under today's rules, negotiations for access to municipal rights-of-way that last two years or longer are common and delay access to advanced networks for Canadians while creating significant uncertainty for multi-million or even billion dollar network deployment capital projects that serves as a disincentive to investment. The United Kingdom recently took steps to relieve carriers from similar consent requirements to great success. In 2012, they adopted a policy which replaced their *ex ante* consent requirement with a notification requirement. The regime was given a five year sunset after which it expired unless renewed. In the next five years, "superfast" broadband availability in the United Kingdom increased from 75% of United Kingdom premises to 95%.

95. The policy change was such a success that the United Kingdom government recommended last year that a sunset clause be removed in order to make this streamlined process permanent. Although many parties, including municipalities, initially expressed strong opposition to the proposal, during the five-year review, there was significant support given the success of the program from many parties including those municipalities that initially opposed the proposal. In the UK government's own words: "These changes have proved successful in

speeding up the process of superfast broadband rollout, providing planning certainty and reducing the costs of deployment." The change in policy was accordingly made permanent in 2018. Details can be found at Attachment 9, the expert report by Norman Gillian.

96. We believe Canada should also relieve TSPs of municipal consent requirements for the deployment of telecommunications facilities. Under our proposal, TSPs and distribution undertakings would not be required to obtain advanced consent from municipalities to construct a transmission line, but would instead have an obligation to provide the public authority with advanced notification of planned construction activities. Should a public authority object to the construction plans of a TSP or distribution undertaking on the basis that the plans will unduly interfere with the public use and enjoyment of the public property, or if the TSP or distribution undertaking fails to provide appropriate advanced notification of its construction plans, the public authority could file an application with the Commission.

97. Such an approach will expedite broadband deployment in Canada at a critical time, and reduce costs for network facilities. At the same time, municipalities will continue to have all the tools they require to preserve the appropriate use of public lands.

3.3 Priority 3: Eliminate the regulatory advantages given to foreign television services

98. The current regulatory framework in Canada gives non-Canadian broadcasting services (both linear and OTT) a significant commercial and regulatory advantage over the Canadian services with which they compete. In particular, Canadian linear television services and BDUs are subject to rate regulation, Canadian content expenditure or funding requirements, Canadian content exhibition requirements, independent production obligations, wholesale pricing and packaging rules, restrictions on transfers of ownership, tangible benefits obligations, and ownership caps, among others. In contrast, foreign-owned linear services are not subject to any of these rules while foreign-owned OTT services earning hundreds of millions of dollars in annual revenues in Canada not only are exempt from these rules but do not even collect and remit sales taxes. Together, these foreign-owned services generate over \$1 billion per year in revenues from broadcasting in Canada.⁵⁹

⁵⁹ By way of illustration, a standard Netflix subscription today costs \$13.99 and there are more than 7.5 million households in Canada subscribing to Netflix. Therefore, the annual revenue earned from Canadian broadcasting by Netflix alone exceeds \$1 billion. Added on to this would be the approximately \$445 million in affiliation payments made annually by Canadian BDUs for American programming services, as well as all of the revenue earned in Canada by all other foreign-owned OTT services.

99. The current regulatory approach was established in the 1980s and 1990s, when there were two crucial differences in the market compared to today. First, at that time, the Commission had concluded that foreign-owned linear services authorized for distribution in Canada could not "be considered either totally or partially competitive with Canadian discretionary services"⁶⁰ and that "new media broadcasting undertakings have not had any detrimental impact on conventional radio and television audiences or on the advertising revenues of traditional broadcasters".⁶¹ In that context, the rule prohibiting "competitive" foreign services worked well as it led to culturally beneficial partnerships between Canadian and foreign broadcasters as a means of serving the Canadian market. Today, no such conclusions could reasonably be reached. Instead, Canadian and foreign-owned services regularly compete directly for exactly the same shows and audiences, and as set out below foreign-owned and OTT services are eroding the viewership, subscriptions, and advertising revenues of Canadian services.

100. Second, because at the time cable companies offered exclusively large "tiers" of programming, the incorporation of high-demand foreign services into the market provided a benefit to Canadian services by driving the penetration of larger tiers. Today, with all BDUs offering flexible packaging and foreign competition emerging primarily from OTT services offered directly to consumers, this benefit has disappeared.

101. The current approach is therefore no longer supported by the facts, and unsustainable. The situation must now be addressed. We agree with the Commission that:

To ensure a vibrant domestic market and be equitable to all players, it will be essential to develop better regulatory approaches that engage all audio and video services and for each to participate in the most appropriate ways in creating and promoting content by and for Canadians. Accordingly, if legislative change is to take place, it should clearly and explicitly make any video or audio services offered in Canada and/or drawing revenue from Canadians subject to the legislation and incorporate them into the broadcasting system. This should apply to traditional and new services, whether Canadian or non-Canadian. Further, any new or revised legislation should be founded on the principle of ensuring that Canadians continue to have access to high quality audio and video content and that is made by and for Canadians, as well as the best content from

⁶⁰ Public Notice CRTC 84-81, *Specialty Programming Services*.

⁶¹ Public Notice CRTC 1999-118, *Call for comments on a proposed exemption order for new media broadcasting undertakings*, at paragraph 6.

around the world, regardless of the platform, device or technology they wish to use.⁶²

102. In our recommendations, we embrace this principle of technological neutrality to the greatest extent possible.

3.3.1 Foreign services are not "complementary"

103. Whatever has been the case in the past, there is no doubt that foreign services – both linear and OTT – are now materially and directly competitive with the Canadian services that carry all of the obligations of the Canadian broadcasting system.

104. Foreign-owned linear services distributed in Canada earn \$445 million in revenue annually from Canadian BDUs and their subscribers, an amount that has grown at a Compound Annual Growth Rate (CAGR) of 6.1% since 2012 compared to a rate of 3.4% for Canadian services.⁶³ These services operate in genres – such as news (CNN, MSNBC, etc.) and scripted dramas and comedies (OTA networks and AMC) – that are consistent priorities for Canadian cultural policy.

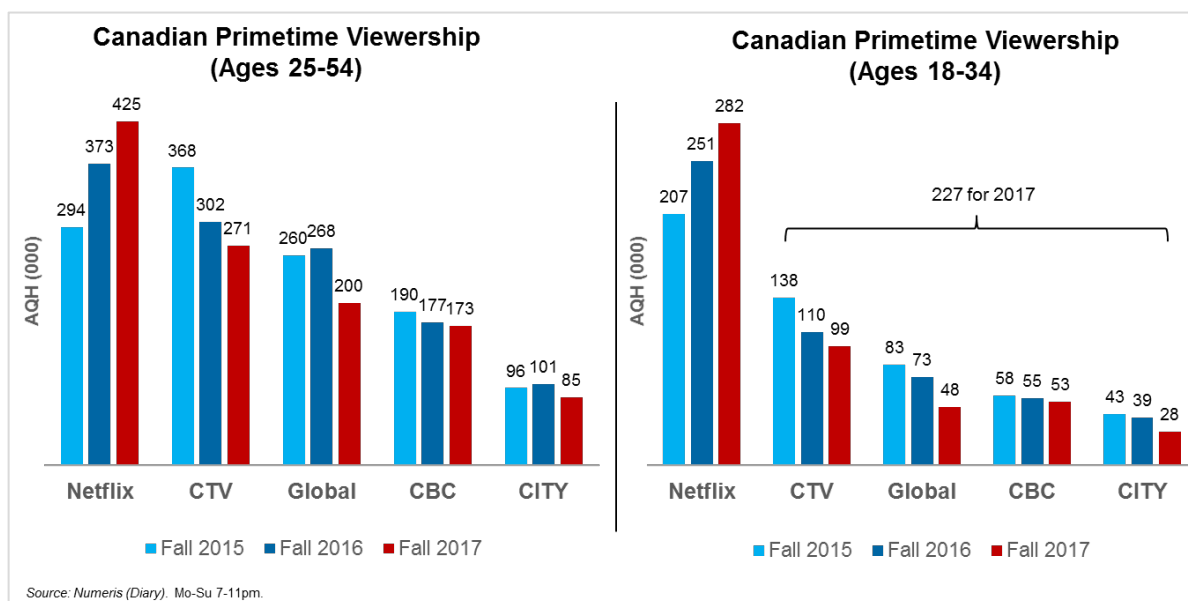
⁶² CRTC, *Harnessing Change: The Future of Programming Distribution in Canada*. See Conclusions and Potential Options.

⁶³ CMR 2017, Table 4.3.10.

105. Foreign-owned OTT services are also growing at a rapid rate, eroding viewing, subscriptions, and advertising for regulated Canadian services. Figure 1, below, demonstrates that in the key demos of A25-54 and A18-34, Netflix leads all Canadian networks in primetime viewing and in the latter demo it now accounts for more primetime viewing than all of the Canadian networks combined.

Figure 1

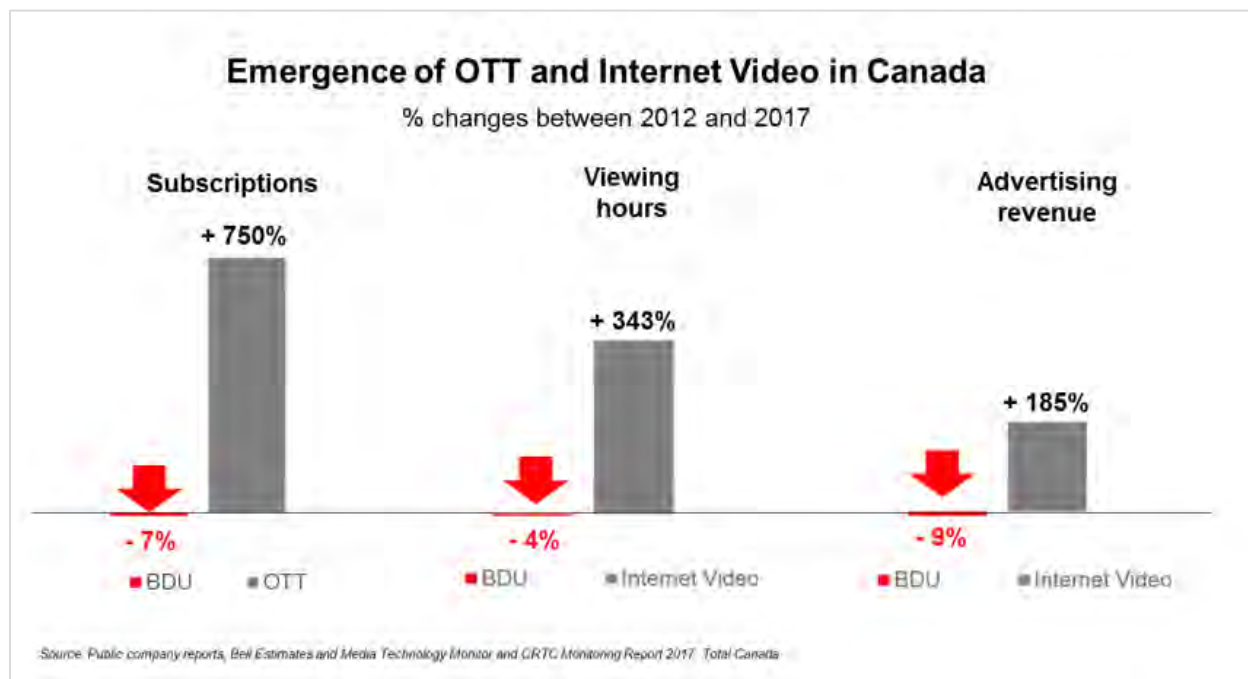
Netflix Viewership Growing at the Expense of Canadian Broadcasters



106. Figure 2, below, shows that since 2012 subscriptions, viewing hours, and advertising revenue have fallen materially for traditional players while growing rapidly for OTT services – strong evidence that the two are not complementary but competitive substitutes.

Figure 2

OTT/Internet Video Subscriptions, Viewing, and Advertising Growing at the Expense of Services Accessed Through Canadian BDUs



107. While the trend of OTT expanding at the expense of traditional services was already well-established by 2017, in a JD Power study of more than 9,000 Canadian television customers that year, 27% indicated they were either planning to or considering abandoning traditional services entirely in favour of OTT services. This is consistent with the economic logic of the OTT model, which makes it easier for a smaller number of services to fill the content needs of a consumer:

... [U]nique to the SVOD era is the fact that, whether deliberate or not, a dominant market player will crowd competitors out of the market... the pay-TV bundle meant that most networks benefited from both guaranteed distribution and a substantial revenue floor (i.e. affiliate fees)... The bundle also meant that competitors were never more than a remote click away... Every pay-TV household had access to hundreds of competing networks, financially supported almost all of them, watched dozens and routinely used more than 15.

Conversely, online distribution encourages audiences to concentrate their watching time and enables networks to monopolize their viewers' attention...

Collectively, this produces a powerful positive feedback loop for any market leader – which we're already seeing with Netflix.⁶⁴

108. If we wish to maintain a Canadian broadcasting system that can contribute to Canadian cultural policy, then new rules must eliminate the advantage currently given to foreign-owned services, require all Canadian and foreign-owned services to make similar contributions, and create an environment in which Canadian services can compete sustainably and effectively.

3.3.2 Effective model for regulatory parity

109. Any proposed model for achieving technological neutrality and regulatory parity must include a practical approach to identifying the OTT services that are subject to the rules. It must also ensure that the nature of the obligations imposed on a particular type of service correspond to the nature of that type of service.

Threshold for the Application of Regulation

110. In order to address the first of these requirements, we propose that regulation apply to *foreign-owned OTT services* when: (i) the service earns more than \$300 million in annual revenues in Canada; or (ii) the service is made available in Canada and operated by an entity that together with its affiliates has total worldwide annual revenues from all of its operations exceeding \$1 billion. There is no justification for companies operating at this scale in the digital economy not to comply with a basic Canadian regulatory framework.

111. For *Canadian-owned OTT services*, regulation would similarly apply when the service earns more than \$300 million in annual revenues in Canada. Unlike in the case of foreign services, Canadian OTT services would not be subject to regulation on the basis of the total revenues from all of the worldwide operations of the operator. This is for three reasons. First, policy should support the easiest possible market entry for Canadian OTT services and should support them in achieving a minimum scale prior to becoming regulated. Second, most of the significant existing Canadian OTT services are operated by entities that have for years been making a disproportionately large share of the regulatory contributions through the linear services they own. Finally, refraining from regulating Canadian OTT services based on the total

⁶⁴ Matthew Ball, "Netflix Isn't Being Reckless, It's Just Playing a Game No One Else Dares (Netflix Misunderstandings, Pt. 3)" *REDEF* (8 July 2018), available online at <https://redef.com/original/netflix-isnt-being-reckless-its-just-playing-a-game-no-one-else-dares-netflix-misunderstandings-pt-3>.

revenues of their operator will ensure that these services have, in their early days, the same regulatory treatment in their own home market as foreign OTT services have in theirs.

OTT Services Categories

112. We are proposing two basic categories of OTT service regulation – one for programming services and one for BDUs. While this distinction is well understood in the existing regulated system, with respect to OTT, programming services are those that distribute content or programs they own exclusively or license (e.g., Netflix, Crave TV, Club Illico, Amazon Prime) and BDU services are those that distribute "channels" of content from third parties (e.g., Amazon Channels, PlayStation Vue, YouTube TV).

113. While the basic regulatory framework would be the same for all services within each of these categories, some slight differences between linear and OTT, and Canadian and foreign-owned, services would necessarily remain.

Regulatory Obligations

114. For programming services, the core obligation would be to contribute 20% of Canadian broadcasting revenues to Canadian cultural objectives. With respect to Canadian programming services (both linear and OTT), this would mean either contributing the funds to the Canada Media Fund (CMF) or otherwise investing the funds in the production of Canadian content as they do now in terms of their Canadian Programming Expenditure (CPE) obligations. All other obligations would be eliminated, in part because they cannot practically be imposed on foreign or OTT services and in part because they are often counterproductive (e.g., independent production rules have prevented Canadian broadcasters from emerging as Canadian studios at scale).

115. With respect to foreign programming services (both linear and OTT), this would mean contributing 20% of Canadian broadcasting revenues to the CMF while foreign services would be able to commission or acquire Canadian content for their services, they would not be able to use their content to satisfy their obligations. Nor would foreign programming services be permitted to acquire exclusive Canadian OTT rights to programming that is made with CMF funding, as doing so would undermine the long-term viability of the Canadian ecosystem and potentially put creative direction in the hands of foreign companies rather than Canadians.

116. For BDUs, the core obligation would be to contribute 5% of Canadian broadcasting distribution revenue to the CMF. Existing Canadian licensees would retain a somewhat unique role, with additional obligations to carry local and public interest ("9(1)(h)") channels in basic distribution, including retaining retransmission rights and obligations for OTA services and performing simultaneous substitution. Both Canadian and foreign-owned OTT BDUs would have no other obligations, including no obligation to be licensed, no obligation to carry specific channels, and no rights or obligations associated with the carriage of OTA services.

117. Given the very significant revenues already earned by OTT services in Canada and the growth trajectory of OTT services compared to linear services, the approach we recommend will result in stronger support for Canadian creators and the Canadian cultural system than would simply maintaining the existing rules.

Implementation

118. There are three possible recommendations the Panel could make to contribute to the establishment of such a regime. Given that OTT services already constitute broadcasting under the *Broadcasting Act*, the Panel could simply recommend that the Commission change existing regulations/licence conditions and exemption orders. The Commission has said, however, that "if legislative change is to take place, it should clearly and explicitly make any video or audio services offered in Canada and/or drawing revenue from Canadians subject to the legislation and incorporate them into the broadcasting system". In our view, this reflects a Commission preference to implement such regulation with explicit policy and political direction from the Government.

119. In this regard, the Panel could recommend that the Government either issue a direction to the Commission to amend the *Digital Media Exemption Order* along the lines set out above or that it amend the *Direction to the CRTC (Ineligibility of Non-Canadians)* to provide for limited eligibility of foreign OTT services to be licensed with obligations and restrictions consistent with the above. Either approach would give the Commission confidence to implement such a regime under its existing statutory powers.

120. Either additionally or alternatively, the Panel could recommend that the *Broadcasting Act* be amended to specify that both Canadian and foreign-owned services must be required by regulation to make similar, binding contributions to the objectives of the broadcasting system.

3.4 Priority 4: Fix the local television business model to support news journalism

121. The legislative and regulatory framework in Canada prevents Canadian OTA stations from earning subscriber fees. Accordingly, these services are forced to rely exclusively on revenues from the increasingly fragmented advertising market. The result has been that private OTA stations have lost money every year in recent years, with aggregate losses approaching \$1 billion since 2013.⁶⁵

3.4.1 The importance of local television

122. Local television continues to be a primary source for news and information programming in local communities and the boots-on-the-ground reporting done by these stations forms the backbone of the national news available across the country. As the then Minister of Heritage acknowledged in the policy framework for the *Creative Canada* initiative, "an independent, trustworthy news ecosystem, reflecting diverse Canadian perspectives and fostering dialogue on public issues, is fundamental to the health of Canada's democracy."⁶⁶

123. While there are many places online where one can read news in 2019, that is not the same as a healthy news ecosystem. Our local television stations bring a local and journalistic presence to 30 communities from Sydney, Nova Scotia to Terrace, British Columbia.

124. Canadians understand the importance of local news. As the study by Peter Miller in Attachment 7 reports, 78% of Canadians agreed that local television news is valuable to them, while 74% disagreed with the statement that they "wouldn't care if local news broadcasts on TV were no longer available to them," and 78% thought that if there was no news on television, democracy would be threatened.⁶⁷

⁶⁵ Armstrong Report, Figure 1 and accompanying text.

⁶⁶ Canadian Heritage, *Creative Canada – Policy Framework* (2017), available online at: <https://www.canada.ca/content/dam/pch/documents/campaigns/creative-canada/CCCadreFramework-EN.pdf>, page 32.

⁶⁷ See Attachment 7, Peter Miller, *Local Television News in Canada: Prospects and Proposals for Action*, (January 2019) [Miller Report], page 17.

3.4.2 **Effective model for sustaining local television**

125. It is well understood that the fundamental problem for local television stations is that – unlike every other television service and every news publication – they are prevented from collecting revenues directly from subscribers. That is precisely the problem the Commission attempted to remedy in 2010 with its value-for-signal decision when it determined that:

[I]n order to fulfil the policy objectives set out in section 3(1) of the Act, the system needs revision so as to permit privately-owned television broadcasters to negotiate with BDUs to establish the fair value of the product provided by those broadcasters to BDUs. The system should be such that privately-owned broadcasters that own programs or have paid for the exclusive right to disseminate programs can negotiate for payment with BDUs, which, in turn, further disseminate those programs. By establishing a regime in which market forces can function effectively, the broadcasting system will benefit through the recognition of the fair value of programming services. **This approach is consistent with the market-based negotiations that increasingly prevail on all other platforms, including discretionary services, VOD, and online and mobile platforms.**[emphasis added]⁶⁸

126. The Commission was ultimately unable to take action to support its policy objectives, however, as a result of the existing legislative framework. In particular, section 31(2) of the *Copyright Act* gives BDUs the right to retransmit OTA stations without authorization or payment as long as, among other things, the retransmission is lawful under the *Broadcasting Act*. The Commission proposed to implement a regulation that would have made retransmission lawful only after payment of a subscriber fee. The Supreme Court of Canada found that the Commission did not have the jurisdiction to make such a regulation under the existing *Broadcasting Act*.

127. The most direct means of remedying this issue is to amend the *Broadcasting Act* to specify that no licensed or exempt distribution undertaking may carry a local or distant Canadian signal that is subject to local news obligations in Canada without paying a fee negotiated with the operator. This would empower the Commission to implement the Value-for-Signal regime it previously attempted to adopt by addressing the limitation in the existing legal framework that prevented it from doing so. The benefit of this approach is that it maintains OTA distribution for local television stations.

⁶⁸ Broadcasting Regulatory Policy CRTC 2010-167, *A group-based approach to the licensing of private television services*, paragraph 163.

128. An alternative to the above proposal would be to create a new category of licence for "local specialty" stations. Existing local stations would be permitted to give up OTA distribution in favour of this licensing regime, which would provide mandatory basic carriage pursuant to section 9(1)(h), a subscriber fee paid by BDUs and set by the Commission, existing local news obligations, and existing simultaneous substitution rights. The benefit of this approach is that it can be implemented quickly and without legislative change, hopefully addressing this critical issue before too many local television stations close.

129. Local television has long been a cornerstone of the broadcasting system, and policymakers have known for nearly a decade that the business model for local television must be fixed. The Panel now has the opportunity to finally set the system on a sustainable course for addressing this issue.

3.5 Priority 5: Combat content piracy

130. Canadian creators, the Canadian broadcasting system, and the Canadian telecommunications system do not have effective tools to protect the content that is central to the creative and digital economy against the rampant growth of digital piracy. This has a direct impact on both Canadian creators and the Canadian economy, as well as on the achievement of the policy objectives in the *Broadcasting Act*, as all of this illegal activity operates outside the rules that are put in place to achieve those objectives. As described below, legislative change is required to recognize the new reality and allow Canada to catch up to its peers in addressing this issue.

3.5.1 The impact of piracy in Canada

131. Piracy is an increasingly critical issue for Canadian creators and legitimate Canadian industries. Piracy infringes the rights of Canadians that create, invest in, produce, and disseminate creative works, and makes it difficult, if not impossible, to build the successful business models that will meet the evolving demands of Canadians, support Canadian content production, and contribute to the Canadian economy.

132. Indeed, the urgency of the threat now posed by growing content theft brought together more than 30 organizations comprising Canadian artists, content creators, unions, guilds, producers, performers, broadcasters, distributors, and exhibitors to form the FairPlay Canada

coalition. The coalition filed an application with the Commission in January 2018 asking the Commission to implement a rule under the *Telecommunications Act* that would disable access to some of the most egregious piracy sites on the Internet.

133. FairPlay Canada's application to the Commission summarized the overwhelming evidence regarding the impact of content theft on Canada's economy and creative sector:

- Piracy sites now regularly reach up to 15.3% of Canadian households (or more than two million households) through illegal set-top-boxes loaded with KODI piracy add-ons or providing access to piracy subscription services. This is up from effectively zero five years ago.⁶⁹
- In addition,⁷⁰ there were 2.5 billion visits to piracy sites to access stolen television content using web browsers in Canada in 2017. This form of piracy is also growing rapidly, up approximately 9% between just the first six months and the last six months of the year.⁷¹
- In addition, one in every three Canadians obtained music illegally in 2016, up approximately 30% from about one in every four Canadians in 2015.⁷²
- According to recent research conducted for ISED, in partnership with Canadian Heritage, 26% of Canadians self-report as accessing pirated content online.⁷³ This likely understates the size of the problem: given that sites and services engaged in content theft often promote themselves openly as legal so some people may not know they are accessing infringing content; and others may be unwilling to admit to infringement in a survey response.

⁶⁹ Sandvine, "Video Piracy in Canada" *Global Internet Phenomena Spotlight* at pages 5 and 6.

⁷⁰ The items identified in these bullets are cumulative – i.e., the 2.5 billion visits to piracy sites does not include any visits associated with the use of illegal set-top-boxes.

⁷¹ MUSO, *Annual Piracy Report: TV – Canada* (2017).

⁷² See the submission made by Michael Geist to the Commission at paragraph 43, available online at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=272797&en=2018-0046-7&dt=i&lang=e&S=C&PA=t&PT=pt1&PST=a>. This is addressed in the intervention of Barry Sookman submitted to the Commission at page 3, available online at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=272681&en=2018-0046-7&dt=i&lang=e&S=C&PA=t&PT=pt1&PST=a>.

⁷³ ISED, *Study of Online Consumption of Copyrighted Content: Attitudes Toward and Prevalence of Copyright Infringement in Canada* (30 March 2018).

134. Not surprisingly, this content theft is having a significant economic impact on Canadian cultural industries that employ 630,000 people or ~4% of Canadians and contribute \$55 billion or ~3% of Canada's GDP.⁷⁴ A number of different estimates of the economic impact of television piracy in Canada all indicate that it is in the range of \$500 million to \$650 million annually.⁷⁵

135. Studies also show that piracy will cost legal streaming services such as Crave TV, Club Illico, Netflix, and Amazon more than \$50 billion between 2016 and 2022⁷⁶, which is presumably why Netflix considers video piracy a substantial competitor and, if left unchecked, potentially its biggest competitor.⁷⁷

136. The economic impact of piracy on Canadian streaming services and their partners in the Canadian production industry is clear.⁷⁸ For example, New Metric Media produces *Letterkenny*, which is a hit original comedy on our OTT service Crave TV. By the end of 2018, *Letterkenny* had been downloaded more than 1.5 million times in Canada, with a significant portion of those downloads being entire seasons or the entire series. In total, the data shows that about 500,000 households have downloaded every single episode of the show. Those households could subscribe to Crave TV to watch the show at a cost of approximately \$0.30 per episode. Because they instead rely on piracy, approximately \$60 million per year is lost from a Canadian OTT service that could otherwise reinvest it in more great Canadian content.⁷⁹ As New Metric Media explained in an intervention to the Commission on the FairPlay Canada application:

The impact of this rampant piracy on the value of our production is impossible to know for sure but you can easily imagine that it would reach into the millions or even tens of millions of dollars. Anyone with any familiarity with the Canadian production industry knows the impact such losses will inevitably have on quality, as well as the ability to get future seasons of this show and future productions of other shows greenlit.

⁷⁴ Canadian Heritage, *Creative Canada: Policy Framework* (2017) at page 7. See FairPlay Canada application to the Commission (30 January 2018) at paragraph 34.

⁷⁵ Armstrong Consulting, *The Economic Impact of TV Program Piracy* (11 May 2018); FairPlay Application at paragraph 45.

⁷⁶ Stewart Clarke, "Piracy Set to Cost Streaming Players More Than \$50 Billion, Study Says" *Variety* (30 October 2017) available at <https://variety.com/2017/tv/news/piracy-cost-streaming-players-over-50-billion-1202602184/>.

⁷⁷ Netflix, "Netflix's View: internet entertainment is replacing linear TV", available online at <https://ir.netflix.com/netflixs-view-internet-tv-replacing-linear-tv>.

⁷⁸ New Metric Media Intervention, FairPlay Canada application (27 March 2018), available at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=272716&en=2018-0046-7&dt=i&lang=e&S=C&PA=t&PT=pt1&PST=a>.

⁷⁹ A subscription to Crave TV costs \$9.99 per month. If 500,000 households rely on piracy rather than subscribing, that is approximately \$5 million per month or \$60 million per year.

3.5.2 New tools for rightsholders

137. While there is no single solution for the problem of piracy, there are longstanding and widely adopted tools that can help to reduce its impact.

Disabling Access to Piracy Sites

138. By far the most important tool that modernized legislation should adopt is the ability for an independent authority to grant orders requiring all Internet service providers (ISPs) to disable access to sites that are blatantly, structurally, or overwhelmingly engaged in piracy.

139. FairPlay Canada made precisely this proposal to the Commission because it is known to work. In fact, 42 countries (including the United Kingdom, France, and Australia) have adopted or are legally required to adopt similar regimes. The leading and authoritative recent studies on these countries show that disabling access to piracy sites is highly effective:

- ***Danaher, Smith, & Telang – United Kingdom (2016)***: Blocking 53 major piracy sites in November 2014 led to a 90% reduction in visits to the blocked sites, a 22% reduction in total piracy for affected users, and a 6%-10% increase in traffic to legal sites.⁸⁰
- ***Danaher, Smith, & Telang – United Kingdom (2015)***: Blocking 19 major piracy sites in October and November 2013 led to an 83% reduction in visits to the blocked sites and a 12% increase in traffic to legal sites (for the heaviest pirate users, the increase in legal traffic was 24%).⁸¹
- ***INCOPRO – Portugal (2017)***: Blocking 66 major piracy sites led to a 70% reduction in usage of the blocked sites and a 41% lower total piracy level than would otherwise have prevailed (i.e., a 10% reduction in usage of the top 250 piracy sites in Portugal vs. a 31% increase in usage of those sites globally).⁸²
- ***MPA – Korea (2016)***: Blocking 62 major piracy sites resulted in a 90% reduction in usage of the blocked sites and a 51% reduction in total visits to all infringing P2P sites.⁸³

⁸⁰ Brett Danaher, Michael D. Smith, and Rahul Telang, "Website Blocking Revisited: The Effect of the UK November 2014 Blocks on Consumer Behavior" (18 April 2016) [Danaher 2016].

⁸¹ Brett Danaher, Michael D. Smith, and Rahul Telang, "The Effect of Piracy Website Blocking on Consumer Behavior" (November 2015).

⁸² INCOPRO, Site blocking efficacy in Portugal September 2015 to October 2016 (May 2017).

⁸³ Motion Picture Association –Canada Intervention, FairPlay Canada application, paragraph 23, available at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=272754&en=2018-0046-7&dt=i&lang=e>.

- **INCOPRO – Australia (2017 & 2018):** Blocking 5 major piracy sites led to a 72% reduction in usage of the blocked sites and 8% reduction in usage of the top 50 piracy sites. Subsequent blocking of additional piracy sites further reduced the usage of the top 50 piracy sites so that the total decrease in usage of the top 50 piracy sites was 35% and of the top 250 piracy sites was 25.4%.⁸⁴

140. A policy that reduces the total level of piracy by up to 40% from the level that would otherwise have prevailed, and that substantially increases the legal consumption of content⁸⁵, can only be considered incredibly effective. The fact that it does not eliminate 100% of piracy is not a justification for inaction.

141. The Commission did not adopt the FairPlay proposal on the grounds that it did not have jurisdiction to do so under the *Telecommunications Act*, while "acknowled[ing] that the record of this proceeding demonstrates that there is evidence that copyright piracy results in harm to the Canadian broadcasting system and to the economy in general."⁸⁶ The Panel should recommend changes to the *Telecommunications Act* to eliminate any doubt about the Commission's jurisdiction over this issue.

142. In particular, the Panel should recommend additions to both section 24 and section 36 of the *Telecommunications Act* to specifically authorize the Commission to both approve and require carriers to disable access to sites that are blatantly, overwhelmingly, or structurally engaged in piracy.

Criminal Prohibition for Organized Commercial Copyright Theft

143. This is not the first time that a new form of piracy has become widespread and had a major impact economically and on the achievement of cultural policy objectives; the same was true with respect to black market satellite piracy. In response to that problem, criminal

⁸⁴ MPA-Canada Intervention, FairPlay Canada application, paragraph 24 and sources cited therein.

⁸⁵ These studies likely dramatically understate the extent to which disabling access to piracy sites supports legal viewing. In particular, given the data used they were only able to measure the extent to which viewing to legal OTT services increased. It therefore does not capture any increase in viewing to broadcast and pay television services or DVDs, for example, despite these making up a very significant portion of the legal market for content in 2014. They also do not capture the legal sales that would otherwise become supplanted by piracy over time in the absence of the interventions.

⁸⁶ Telecom Decision CRTC 2018-384, *Asian Television Network International Limited, on behalf of FairPlay Coalition – Application to disable online access to piracy websites*, paragraphs 71 and 72.

provisions were added to the *Radiocommunication Act* in 1991 that addressed the decoding of encrypted signals and the possession, use, and importation and sale of devices intended for that purpose. This stimulated law enforcement activity in the area of satellite piracy, which contributed to the investigation and shutting down of piracy operations and also had a significant deterrent effect.

144. With the emergence of organized online piracy and in particular illegal subscription television services that replicate traditional cable services, a similar approach is needed. With illegal subscription television services, however, the sale of devices designed to decode encrypted signals is no longer the commercial centre of the organized criminal activity and the existing remedy under the *Radiocommunication Act* is therefore no longer sufficient to take action against the most important bad actors. Rather, the core criminal activity is the operation of a service that retransmits broadcasting content on the Internet. Accordingly, we recommend that a provision be added to the *Broadcasting Act* making it a criminal offence for anyone subject to an exemption from the requirement to hold a licence to knowingly operate, advertise, supply, or sell or offer to sell access to a distribution undertaking that retransmits broadcasting without lawful authorization from a programming undertaking.

145. Such an approach would concentrate criminal liability on commercially-motivated operators engaged in organized crime and would stimulate additional law enforcement activity to address this pressing threat.

3.6 Priority 6: Avoid prescriptive cybersecurity rules that inhibit industry responses to cyber threats

146. We have already provided, in the context of local television, our priority recommendation for ensuring consumers have access to trusted local sources of on-the-ground reporting to inform their participation in the democratic process. This is crucial to their digital rights as citizens. In Priorities 6 and 7, we identify practical ways to protect consumers from the accelerating threats of malware and identity theft, and in the context of the personal information contained in their digital footprint.

147. With respect to protecting Canadians from malware, malicious spam, and similar threats, telecommunications carriers have an overriding commercial incentive to develop approaches that do this effectively while minimizing the impact on legitimate uses of their services.

3.6.1 Implications for public policy

148. Malicious threats to Canadians' digital rights develop faster than can be addressed by legislative or regulatory processes. From a public policy perspective, Canada needs an approach that supports Canadian TSPs and other industry participants as they continue to compete to deliver the best possible protection of their customers' (and their customers' customers) digital rights. The Panel must therefore avoid recommending rules that could restrict the flexibility of TSPs to respond to threats to digital rights in the manner that best protects their customers' interests. The Panel must also take into account the fact that prescriptive regulation could cause solutions to be designed to meet regulatory mandates rather than address the underlying threats, and could undermine the current commercial incentive that is driving investment in this area.

3.7 Priority 7: Close the Internet platform privacy gap

149. The Panel has rightly observed that "Canadians generate an elaborate digital footprint about themselves and all aspects of their lives... Personal information is also routinely traded by consumers in exchange for free or personalized services." Given the importance of data to future economic growth, public policy must seek to find, as the Government has said, "an appropriate balance... between ensuring the right flexibility and agility for innovation, while maintaining user buy-in and security."⁸⁷

3.7.1 Competition with global platforms

150. The need to appropriately protect digital privacy goes well beyond the companies regulated under the *Telecommunications Act*, *Radiocommunication Act*, and *Broadcasting Act*. Indeed, in Canada and internationally the most powerful companies in this area are not TSPs, spectrum licensees, or traditional broadcasters but the well-entrenched global giants operating platforms that mediate an astonishing portion of all online activity around the world.

151. For Canada to "succeed and lead in the economy of the future, and compete in the global innovation race"⁸⁸ over the long term, Canadian companies will need to compete with dominant and well-entrenched global data giants such as Google, Facebook, and Amazon in

⁸⁷ ISED, *Positioning Canada to Lead in a Digital- and Data-drive Economy: Discussion Paper*.

⁸⁸ *Ibid.*

data-driven markets. These three companies control the top five websites and the top five apps in Canada, have the most monthly Canadian users, are unambiguously dominant in their individual product spaces, and dwarf any potential Canadian competitor that could emerge in any related data-driven markets.

152. While taking on these giants will be a significant challenge for Canadian companies in any circumstances, it will be nearly impossible if some of the most likely Canadian candidates face an unequal playing field in their domestic market that subjects them to more restrictive rules governing data usage than apply to foreign companies doing business here. Unfortunately, that is precisely the situation that prevails today under both the *Personal Information Protection and Electronic Documents Act* (PIPEDA) and the *Telecommunications Act*.

3.7.2 Inconsistent standard

153. While PIPEDA is a flexible tool that can be applied in a way that recognizes the crucial importance of data to the new economy and that creates a level playing field for businesses in Canada, this has not always been the case in practice.

154. In modern data-related markets, telecommunications carriers must compete with Facebook, Apple, Google, and Amazon. Users would expect that we are all required to follow the same rules when using data. Yet today in Canada telecommunications carriers are subject to significantly more onerous rules.

155. Most notably, in a series of decisions over the last ten years, the Office of the Privacy Commissioner (OPC) has applied a lower standard to global data giants such as Google, Facebook, and Apple, and by extension to Amazon, when it comes to targeted advertising, than it has to Canadian telecommunications companies. While the implications are general and could affect Canada's competitiveness in a variety of areas in the digital economy, the specific decisions made to date concern the use of personal information for targeted advertising. They allow these global giants to rely on implied consent when competing in this area, whereas because the OPC classifies us as a telecommunications company rather than an Internet platform or device manufacturer we were required to obtain explicit opt-in consent to compete in the same market.

156. Layered on top of this, the *Telecommunications Act* has allowed the Commission to impose privacy rules on Canadian carriers that do not apply to the large global platforms. As the Commission itself has said, they "may apply higher standards to protect privacy than those contemplated by PIPEDA. For example, the Commission has found that express consent is required for the disclosure of confidential customer information by TSPs whereas implied consent may be sufficient in certain circumstances under PIPEDA."⁸⁹

157. There is no basis for this difference in treatment between Canadian telecommunications companies and US-based Internet giants both engaged in the same data-driven activity. The economic impact of this inconsistent standard is to create barriers to the competitiveness and innovation of Canadian companies, confer unwarranted regulatory advantages on global players, and further entrench the dominance of the global data giants to the detriment of Canadian citizens and competing Canadian companies.

3.7.3 How to close the Internet platform privacy gap

158. With respect to data privacy policy, more broadly, we believe there should be a made-in-Canada approach that reflects economic and policy priorities within the data privacy framework, unlocking the power of data for companies operating in Canada while ensuring Canadians feel confident that their privacy is being protected.

159. In the context of this review, we urge the Panel to recommend that the same rules apply to all companies that do business in or with Canadians or otherwise collect data on Canadians, regardless of their business model, the sectors in which they operate, or their country of origin. From a user's perspective, there is no justification for applying a lower regulatory standard to foreign-owned data giants simply because they are more difficult for Canadian regulators to control and stricter rules on Canadian companies because it is convenient to do so. Similarly, the rules should not change simply because a sector-specific regulator already exists for some companies but not others. From an economic perspective, the data-driven economy is global and traditionally separate lines of business are converging – different rules introduce market distortions that impede growth and innovation.

⁸⁹ CRTC, *Submission to the OPC's Consultation on Consent under PIPEDA* (October 2016), available at https://www.priv.gc.ca/en/about-the-opc/what-we-do/consultations/consultation-on-consent-under-pipeda/submissions-received-for-the-consultation-on-consent/sub_consent_27/.

160. Arbitrary distinctions between foreign and domestic companies and between different businesses and industries should therefore be erased and sector-specific privacy rules should be eliminated. In addition to fostering a more vibrant competitive and innovation environment, this will reduce compliance costs and administrative burdens that impede innovation and increase costs for consumers. Accordingly, we urge the Panel to recommend that the Commission's jurisdiction in the area of privacy be eliminated so that *PIPEDA* would be applied to the communications sector under the oversight of the OPC.

161. We believe the single approach applied under *PIPEDA* should enhance the protection of individuals' privacy by requiring all companies to obtain opt-in consent to use personal information generated from individuals' actions for third party marketing or other ancillary purposes. Opt-in consent sets a standard that will promote trust and confidence among Canadians and give all companies operating in Canada a strong incentive to maintain a reputation as a reliable steward of Canadians' data.⁹⁰

3.8 Priority 8: Provide oversight for threshold economic decisions made by the Commission

162. Under the existing *Telecommunications Act*, oversight of Commission decision-making essentially takes two forms. First, the Governor-in-Council can make binding orders to the Commission regarding policy matters and may vary, rescind, or refer back to the Commission all or any part of any decision.⁹¹ Second, decisions may be appealed to the Federal Court of Appeal exclusively on questions of law or jurisdiction and only with leave.

163. These two forms of oversight reflect the fact that in 1993, other than with respect to the Commission's jurisdiction, most telecommunications questions to be decided by the Commission were technical engineering or costing questions (in respect of which no independent oversight was helpful or appropriate) or pure policy-making questions (in respect of which political oversight was most appropriate). Indeed, it is telling that probably the most common recourse for entities that disagree with Commission decisions in telecommunications

⁹⁰ As a corollary to this, to unlock more of the economic potential of data companies should be able to continue to freely use data that has been reasonably de-personalized (i.e., de-identified or aggregated) as data in that form does not implicate privacy rights.

⁹¹ Sections 12(1) and 12(7) of the *Telecommunications Act*.

matters has been to apply to the Commission itself to review and vary them – clearly this is not an example of oversight.

164. The core economic questions the Commission decides are subject to well-articulated objective tests. This applies in particular to the SMP and essential facilities test that the Commission would be required to apply before implementing economic regulation under our proposal for a modernized *Telecommunications Act*. The answers to these types of questions have vast financial consequences for individual parties, and can set in motion a large regulatory apparatus that in practice is difficult to reverse or remove. In such circumstances, greater independent oversight is appropriate.

3.8.1 Benefits of increased oversight

165. Greater independent oversight of threshold economic decisions made by the Commission, which have significant implications, would increase the fairness of the regulatory process and promote a predictable, stable business climate to continue to support investments in next generation infrastructure.

166. With respect to fairness, oversight by an independent body would avoid concentrating all of the decision-making power with respect to whether regulation is warranted in the same body that would also develop and maintain the regulation.

167. Even more important, however, is the contribution that independent review of SMP determinations would make toward a predictable, stable business climate. Both the Commission (in its policies adopting the essential facilities test) and our proposal (which enshrines the SMP and essential facilities tests in the legislation) adopt well-understood threshold tests for economic regulation. The intended benefits of doing so are to: (a) ensure that regulation is not imposed where the costs would outweigh any potential benefits and (b) give businesses confidence about when regulation can be expected, so that they can plan their investments and other affairs accordingly.

168. Without independent oversight, these benefits are less likely to be realized, for the simple reason that independent oversight generally increases the accuracy and reliability of decision-making.

3.8.2 Effective approach to oversight

169. The key question regarding the presence or absence of "significant market power" should be subject to oversight that does not exist today. In particular, the oversight should be judicial in its approach and, given that the question is effectively one of economics, incorporate economic expertise. Within the Canadian framework, such oversight would best be supplied by the Competition Tribunal.⁹²

170. The Competition Tribunal is a strictly adjudicative body that "combines expertise in economics and business with expertise in law."⁹³ It is comprised of judges of the federal court and lay experts, and is accustomed to dealing with issues that "are usually of national interest and large in scope and complexity, and can involve significant financial stakes and directly impact on the competitiveness of private enterprise and industry."⁹⁴ Accordingly, it is particularly well-placed to consider a core economic question with wide-ranging regulatory implications.

171. There are two possible ways to integrate Competition Tribunal oversight into the regulatory process. One would be to require the Commission, before it could implement a policy such as wholesale regulation, to apply to the Competition Tribunal for a determination that the party or parties to be subject to the regulation possess significant market power. A second and simpler approach is to maintain existing Commission processes but allow any interested party to challenge any Commission determination under the significant market power or essential facilities tests before the Competition Tribunal.

172. We recommend the latter approach for Canada as it can be implemented quickly and seamlessly within the existing institutional framework. However, both approaches have parallels in economic regulation in other countries. For example, the Australian Communications and Media Commission deals only with operational and technical matters under the *Telecommunications Act* while competition matters must be dealt with by the Australian Competition and Consumer Commission, whose decisions can be appealed to the Australian Competition Tribunal. In the United Kingdom, certain decisions made by the Office of

⁹² *Competition Tribunal Act*, R.S.C., 1985, c. 19 (2nd Supp.).

⁹³ Competition Tribunal, "Home", available online at <https://www.ct-tc.gc.ca/Home.asp>.

⁹⁴ *Ibid.*

Communications (including on the issue of SMP) can be appealed to their Competition Appeal Tribunal.

173. The costs of getting regulation wrong (i.e., unnecessarily regulating and therefore impeding innovation and investment in otherwise competitive markets or failing to regulate and therefore not addressing the exercise of market power in uncompetitive markets) are significant and lasting. For that reason, a responsible regulatory framework should have in place a rigorous oversight process for decisions on the threshold economic question that can unlock a vast regulatory apparatus.

4.0 TELECOMMUNICATIONS POLICY ANALYSIS

174. Since the *Telecommunications Act* was introduced in 1993, the Canadian telecommunications marketplace has undergone a dramatic evolution. Prior to 1993, the primary telecommunications services provided across Canada were the home telephone service and long distance service. These services were provided almost entirely by ILECs. Today, 25 years later, the telecommunications landscape is characterized by intense competition between a variety of new and ever-changing players offering a variety of services over a variety of networks.

175. This transition has been the result of continued technological advancement, supported by a concerted policy of facilities-based competition. As described in Section 3.1, facilities-based competition is widely recognized as the competitive model that brings the greatest benefits to consumers because it drives ongoing investment in the best networks and service offerings that meet individual needs. This drives innovation and further investment, and ultimately brings consumers the cutting-edge services they need to participate fully in the global economy.

176. Until very recently (in particular, until the imminent take up of mandated access to FTTP networks), facilities-based competition has been the preferred policy for markets in which networks are being built and upgraded in competitive conditions (such as wireless and FTTP and other next generation broadband). Given that effectively all telecommunications markets

are now subject to intense end-to-end facilities-based competition, to continue to provide the benefits competition to Canadians will require recommitting to this well-established⁹⁵ policy.

4.1 Wireline competition and policy analysis

177. Market forces in Canada have produced strong outcomes in key areas such as investment, access to advanced networks and innovative services, and penetration, usage, and affordability.

178. With Canada's market already performing well, it is clear that the public policy focus for wireline markets must be on ensuring that the massive planned investments in FTTP, WTTT, and other advanced broadband networks are not disrupted. These investments will extend the full benefits of facilities-based competition and participation in the digital economy to all Canadians, but as the evidence outlined in Section 3.1 above and the CRAI reports indicate, these benefits will be at risk in the absence of the right policy framework.

4.1.1 Investment

179. Investment is the foundation of access to broadband networks and the services they support, and Canada is has been a leader in this regard. Our fixed broadband infrastructure is funded almost exclusively through private capital investments made by facilities-based providers in a highly competitive market. Public investments have been limited to supporting the extension of access to remote communities where there would otherwise be no high-speed broadband access from any provider.

180. As the CRAI 2018 report notes, "Canada is an outlier in having the lowest level of per capita public sector investments in broadband, yet one of the highest Next Generation Access (NGA) deployment levels with commensurate high levels of high-speed broadband penetration and high average download speeds" and "[c]ountries without the investments driven by facilities-based competition have sought to achieve higher NGA deployment with substantial public sector investments."⁹⁶ In particular, Canada's per capita public investment in broadband since 2010 has been approximately \$4.96 compared to \$19.86 for the United Kingdom, \$39.53

⁹⁵ See paragraph 82 of our Comments.

⁹⁶ CRAI 2018 Report, paragraphs 82 and 83.

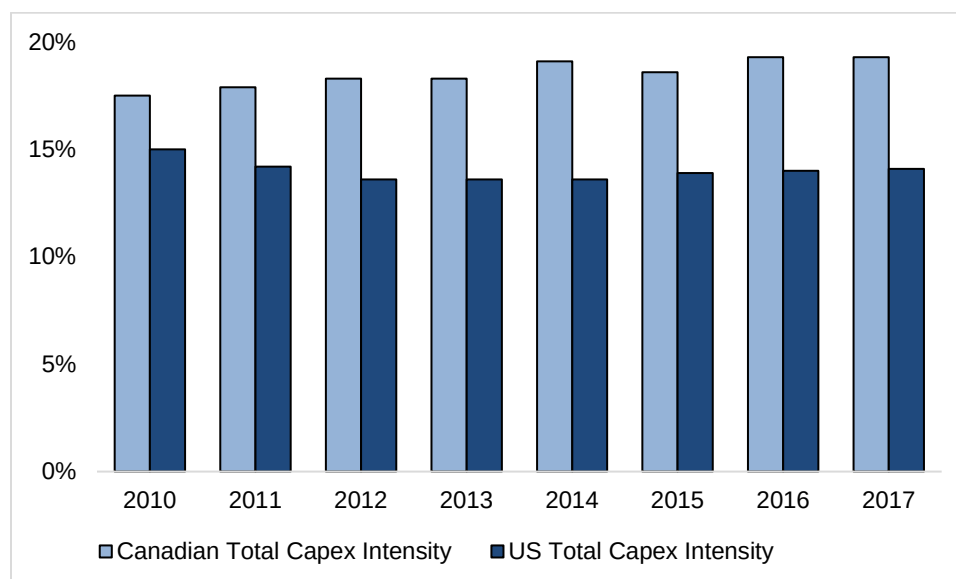
for Japan, \$62.09 for Germany, \$82.90 for the United States, \$249.50 for France, \$275.34 for Italy, and \$1,435.83 for Australia.

181. In these circumstances, when investing in advanced broadband infrastructure in Canada providers must be willing to risk significant financial resources to keep pace with and surpass their market rivals – with no guarantee they will ever achieve the commercial success required to recoup their investment.

182. Canadian ILECs and cable companies invest more than their peers in other countries, supporting a more robust national digital infrastructure. By way of illustration, Figure 3, below, shows the capital expenditure (capex) intensities for Canadian and American providers, as can be seen, Canadian companies are consistently and significantly ahead on this metric.

Figure 3

Capital Intensities of Wireline Service Providers⁹⁷



183. Second, effectively all of the investment in fixed broadband infrastructure in Canada is from full end-to-end facilities-based providers. Resale competition is often advocated by resellers on the basis that it allows them to invest in progressively more of their own facilities

⁹⁷ Canada includes: BCE, TELUS, Rogers, Shaw, Quebecor and Cogeco Cable (Cdn. Cable only). U.S. includes Verizon and Comcast (cable only); AT&T was not included because of the impact WarnerMedia had on capex intensity from 2016 to 2017 (pro forma) and AT&T's revenue decline profile excluding WarnerMedia, as indicated in Exhibit 1 of the Scotiabank Converging Networks Report.

over time. In reality, after decades of promoting this theory and despite serving at least 13% of retail customers (20% retail market share in Ontario and Quebec), resellers in Canada account for 0.03% of investment in wireline infrastructure (a proportion that has been falling over time).⁹⁸ As demonstrated in subsection 4.1.5 below resale competition has proven not to stimulate material investment in advanced broadband networks and indeed significantly reduces investment by facilities-based providers.

4.1.2 Access to advanced networks and innovative services

Deployment of advanced networks

184. The investment driven by facilities-based competition has resulted in 98% of Canadians having access to broadband of 5 Mbps or more and 92% to broadband of 25 Mbps or more.⁹⁹ Since these data were published, ILECs and others have continued to build out fibre infrastructure, cable companies have completed network upgrades, and fixed wireless and satellite networks have increased speeds and coverage.

185. We offer Canadians access to the fastest fixed residential Internet speeds in the world at 1.5 Gbps and the media have reported that as a result of facilities-based competition "Rogers and Bell's plans [even prior to the roll-out of 1.5 Gbps] are among the fastest available in North America."¹⁰⁰

Availability of advanced networks

186. Canada ranks fourth in the G20 – behind only Korea, Japan and the United States – in the percentage of unique Internet connections that exceed 10 Mbps, as shown in Figure 4, below. Facilities-based competition is ensuring that advanced broadband networks are not just widely deployed, affordably priced and heavily used by Canadians.

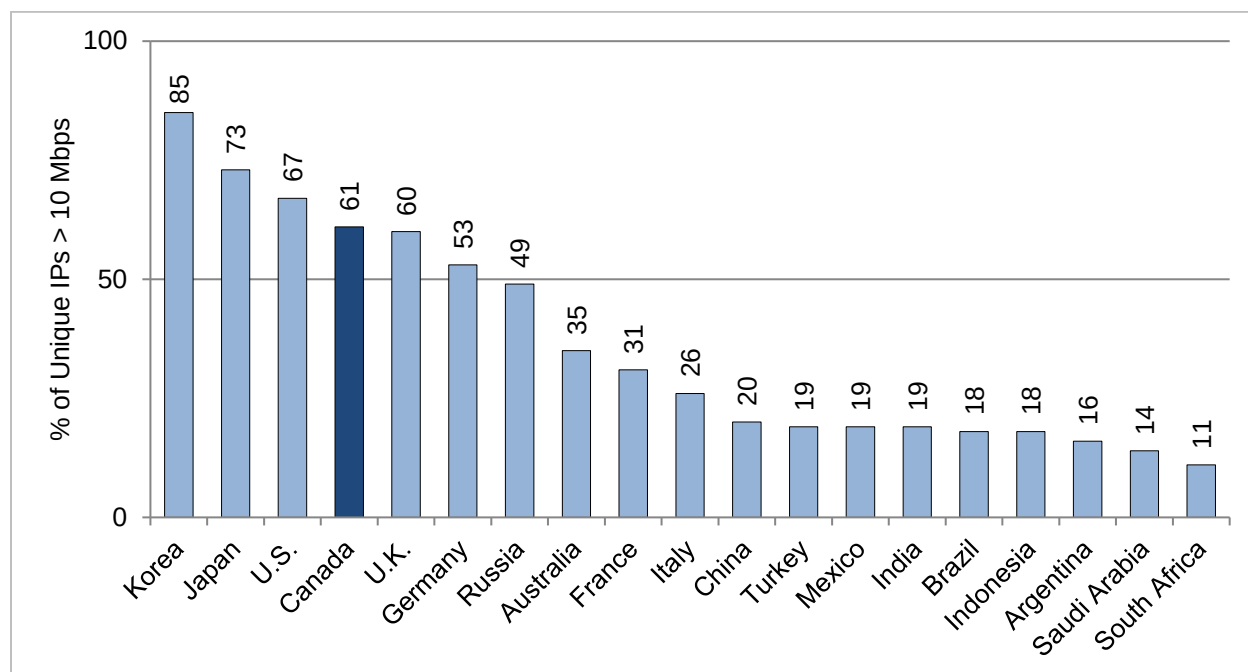
⁹⁸ See CMR 2017, Figure 5.0.5 and CMR 2018, Infographic 5.2.

⁹⁹ CMR 2018 – Retail Fixed Internet Sector and Broadband Availability, Table 5.2.

¹⁰⁰ Emily Jackson, "Bell's fibre expansion boosts competition with Rogers in 'speed-obsessed' Toronto" (20 November 2017), available online at <https://business.financialpost.com/telecom/bells-fibre-expansion-boosts-competition-with-rogers-in-speed-obsessed-toronto>.

Figure 4

Percentage of Connections Exceeding 10 Mbps Speed¹⁰¹



Driving service innovation

187. Facilities-based competition leads to innovation in broadband-delivered services. To make the business case for investing in advanced broadband networks positive, ILECs and cable companies must innovate in an effort to "win the broadband home". This extends competition to areas such as smart home technology and the delivery of new television platforms to consumers.

188. Notably, we have developed industry-leading television platforms (Fibe TV and Alt TV) to win broadband and television subscribers from cable companies. As a response, cable companies have invested significantly in their own platforms.¹⁰² For example, Cogeco adopted the TiVo platform, Quebecor has partnered with Comcast to adopt the X1 platform, and Rogers

¹⁰¹ Akamai, The State of the Internet Report Q1 2017, available online at: <https://www.akamai.com/uk/en/about/our-thinking/state-of-the-internet-report/global-state-of-the-internet-connectivity-reports.jsp>. Note that Akamai does not provide data for the European Union.

¹⁰² Emily Jackson, "Rogers Communications Inc to take up to \$525 million hit as it kills IPTV plans, adopts Comcast platform" (16 December 2016) available online at <https://business.financialpost.com/technology/rogers-communications-inc-to-take-up-to-525-million-hit-as-it-kills-iptv-plans-adopts-comcast-platform>. ("IPTV uses different technology than cable, and Rogers wanted the product to compete with offerings from BCE Inc., whose IPTV subscriber base continues to grow as traditional cable companies bleed TV subscribers").

initially invested over \$500 million to develop their own platform before later abandoning that path and also adopting the Comcast X1 platform. Illustrating the large risks that must be taken in a dynamically competitive environment, Rogers was forced to take a write down of around \$484 million on its initial investment.¹⁰³

4.1.3 Penetration, usage, and affordability

189. In the context of the demands of the digital economy and in a country as large and sparsely populated as Canada, TSPs seek to find an optimal balance among coverage, quality, and affordability. When they find it, the result is both an above-average level of broadband penetration and above-average usage amongst broadband users. This is precisely the case in Canada, where facilities-based competition has minimized obstacles to broadband access.

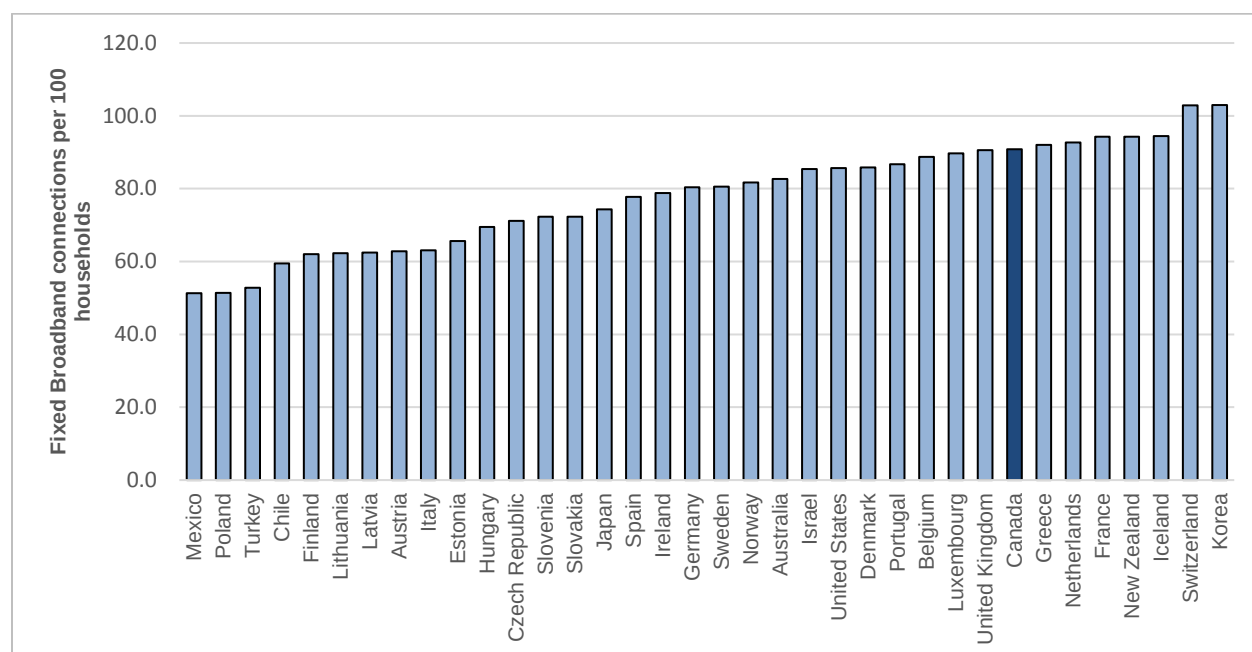
¹⁰³ Rogers Communications, "Rogers Communications Reports Fourth Quarter 2016 Results" (26 January 2017), available online at <https://www.newswire.ca/news-releases/rogers-communications-reports-fourth-quarter-2016-results-611847175.html>.

Penetration

190. With respect to fixed broadband penetration by household, Canada is ahead of countries such as the United States, United Kingdom, Germany, Norway, Sweden and Australia, as Figure 5 shows.

Figure 5

Fixed Broadband Household Penetration (2017)¹⁰⁴

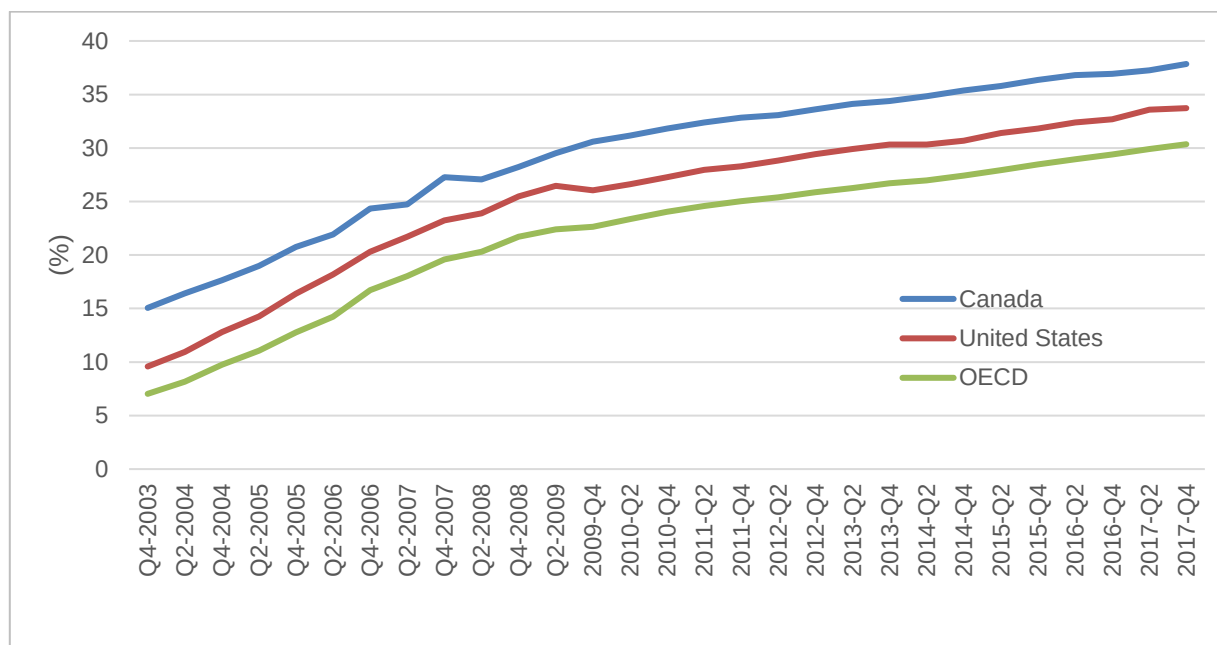


¹⁰⁴ Updated chart based on Jeffery Church and Andrew Wilkins, "Residential Wireline Telecommunications Services in Canada: Primary Exchange Services and Broadband 2015" (March 2015), available online at https://econ.ucalgary.ca/manageprofile/sites/econ.ucalgary.ca/manageprofile/files/unitis/publications/1-6291150/DEP_Wireline_Database_2015_March_25_2015.pdf [Church], Figure 2.2.2. (Sources: OECD Broadband Portal, Table 1.5 "Historical time series, fixed and mobile broadband penetration," December 2017; Household size taken from national statistics providers).

191. Similarly, fixed broadband penetration by population in Canada significantly exceeds the OECD average and is higher than in the United States, as Figure 6 shows.

Figure 6

Fixed Broadband Population Penetration (2017)¹⁰⁵



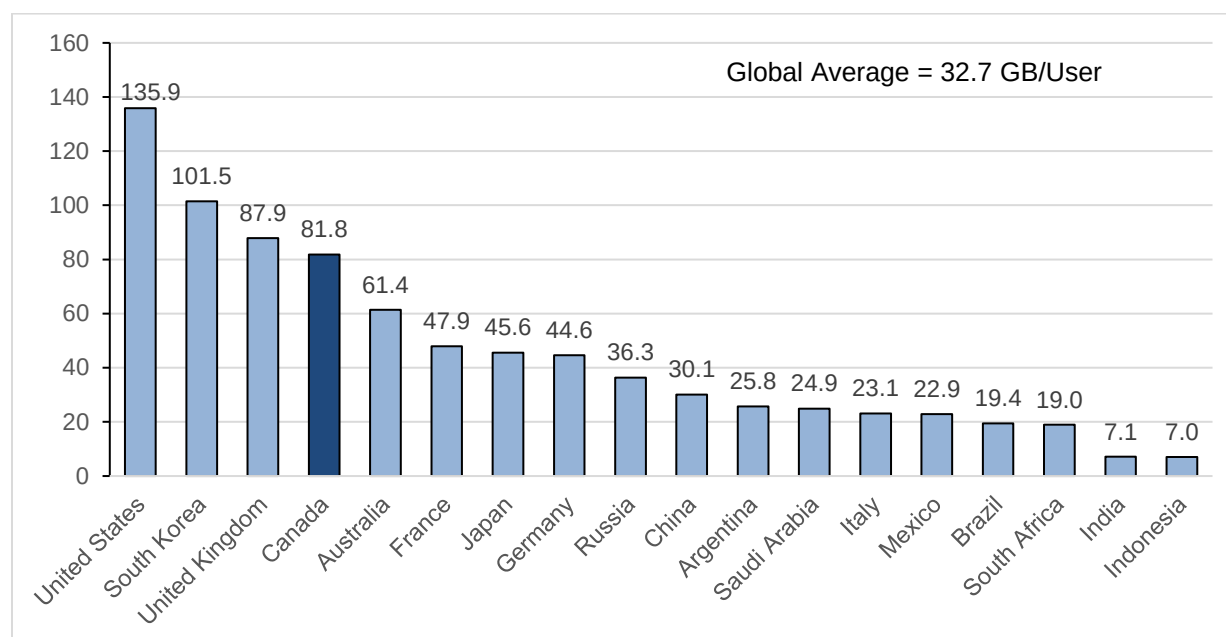
¹⁰⁵ Updated chart based on NERA Economic Consulting, Appendix 1, Figure 12. (Source: "G20 Internet Users in 2017 Q1," Internet World Stats (available at <https://www.internetworldstats.com/G20.htm>) and "VNI Forecast Widget," CISCO (available at https://www.cisco.com/c/m/en_us/solutions/service-provider/vni-forecast-highlights.html#).)

Usage

192. The quality and cost of using broadband connections are such that Canada is among the world leaders in usage – fourth in the world behind just Korea, United Kingdom and the United States. This is shown below in Figure 7.

Figure 7

Consumer Internet and IP Traffic Per User (2017)¹⁰⁶



Affordability

193. Facilities-based competition in Canada has resulted in broadband pricing that is affordable for Canadians and in line with international peers that provide significantly greater public subsidies and rely significantly more on a resale model of competition.

194. For example, for speeds in the 16 Mbps – 40 Mbps range, a report from Wall Communications prepared for ISED showed that Canadian prices are in the middle of the surveyed countries. Internationally, the cost of such plans ranged from \$38.15 in France to

¹⁰⁶ Updated chart based on NERA Economic Consulting, Appendix 1, Figure 12. (Source: "Internet Users by Country (2016)," Internet Live Stats (available online at <http://www.internetlivestats.com/internet-users-by-country/>) and "VNI Forecast Widget," CISCO (available online at http://www.cisco.com/c/m/en_us/solutions/service-provider/vni-forecast-highlights.html).)

\$84.33 in the United States. Canada, at \$70.70, was well within this range and below the United States and Japan.¹⁰⁷ This is true even without controlling for our much lower population density, which increases the difficulty and cost of providing broadband services across our territory.

195. In Attachment 4, Gerry Wall (the author of the above referenced pricing report prepared for ISED) analyzes the affordability of fixed broadband services for low-income Canadians in particular. He determines that compared to the surveyed international peers, "Canada is one of the most affordable countries examined"¹⁰⁸ and that fixed broadband service is already available in Canada at approximately half of what the Public Interest Advocacy Centre determined low-income Canadians were willing to pay for it.¹⁰⁹ This report is based on more recent data than the report prepared by Mr. Wall for ISED.

4.1.4 Market dynamics

196. The successful outcomes in terms of investment, access to advanced networks, and penetration, usage, and affordability are the direct result of the intense competitive rivalry fostered by the policy of facilities-based competition. In particular, they are due to the competitive dynamic that results from broadband investments being made by telcos in Canada in order to successfully compete in this area with cable companies and, increasingly, with wireless carriers.

Competition between telcos and cablecos

197. The intensity of competition between facilities-based providers is perhaps stronger in Canada than anywhere else in the world for a couple of reasons. First, Canada benefits from widespread cable penetration that is not common in most other countries, e.g., Canada's penetration is 85% while the European average is 44%.¹¹⁰

¹⁰⁷ Wall Communications Inc., *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions*, August 29, 2018, page 70.

¹⁰⁸ Attachment 4, Wall Communications Inc., "A Research Report Examining Affordability in the Canadian Mobile Wireless and Fixed Broadband Markets," December 2018 [Wall Report], page 5.

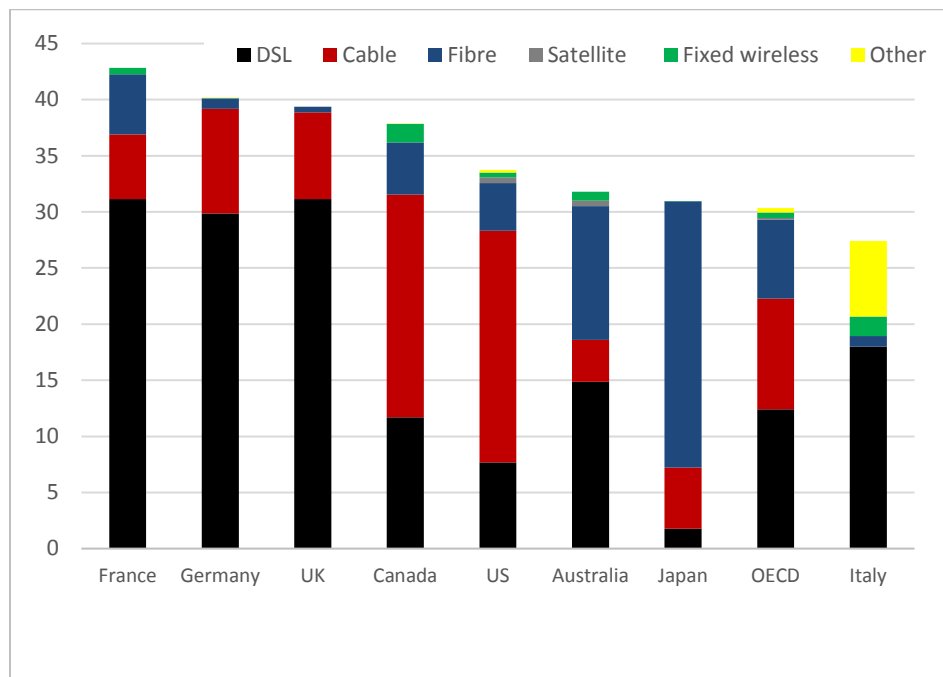
¹⁰⁹ Wall Report, Table 31.

¹¹⁰ CMR 2017 (2016 data); FCC, *Sixth International Broadband Data Report* (2016 data); EC, *Broadband Coverage in Europe 2016* (2016 data).

198. This has resulted in a healthy amount of intermodal competition in Canada, with DSL, cable, fibre, and fixed wireless all playing a material role in the market, as Figure 8 below shows.

Figure 8

Fixed Broadband Subscribers by Mode as a Percentage of Population



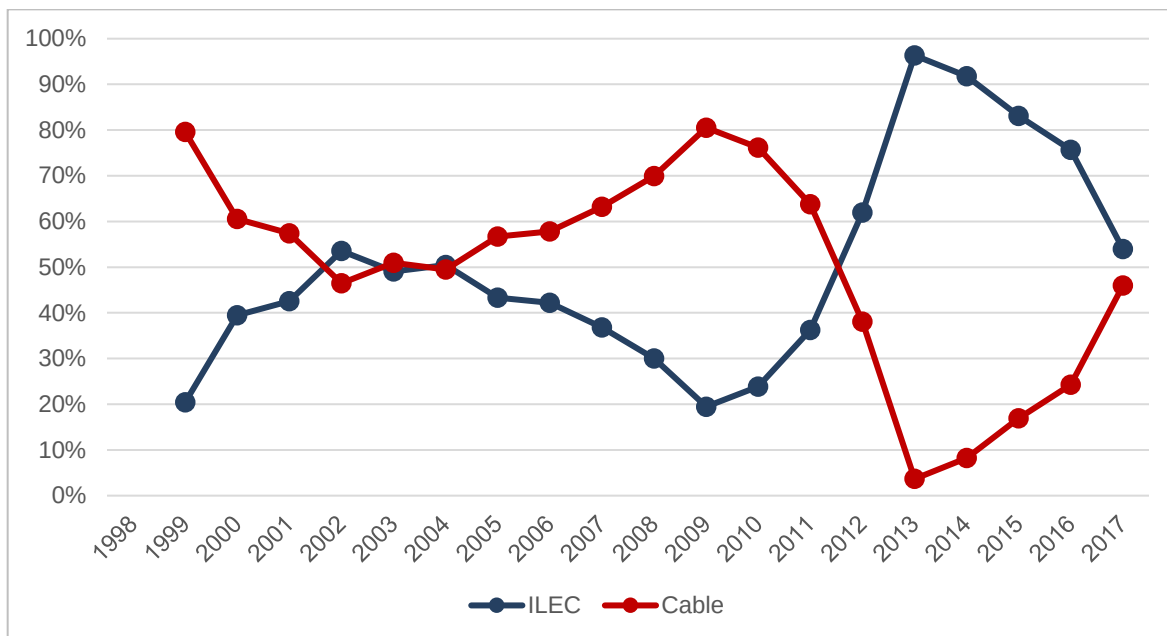
199. Second, underlying this situation is a healthy competitive dynamic, in which both telcos and cablecos compete actively against each other, ensuring that market forces continue to deliver all of the benefits of competition for consumers. In particular, as discussed further below, there have been significant shifts in market share over time – a textbook indicator of highly competitive markets – and both telcos and cable companies continue to successfully attract customers at the expense of one another.

200. As Figure 9 below shows, amongst the primary facilities-based competitors in the Canadian broadband market there has been a constant battle for new subscribers. In particular, cable share of net new additional subscribers fell from 80% in 1998 to less than 50% in 2002 and then increased again to approximately 80% in 2008. At that point, ILECs began to battle back, with their share of net new additional subscribers increasing from approximately 20% to

nearly 100% in 2013. Of course, that led cable companies to use all tools in their competitive arsenal to battle back themselves.

Figure 9

Residential Fixed Broadband Share of ILEC and Cable Net Additions (1999-2017)¹¹¹



201. Focusing on the recent past, the contrast between the state of the market in Canada and that in the United States is instructive. Because Canadian telcos continue to make massive investments in fibre infrastructure, the retail market in Canada remains intensely competitive. By contrast, telcos in the United States have stopped, slowed, or narrowed their fibre network investments and as a result, competition has languished. This is illustrated in Figure 10 and Figure 11, below, which shows that for between 2015 and 2018 (and projected for 2019) in the United States only cable companies have had broadband offerings that attract new consumers.

¹¹¹ Updated chart based on Church, Figure 2.3.2. (Source: CRTC Communications Monitoring Reports).

Figure 10

Share of Broadband Net Additions in Canada (2012-2018)¹¹²

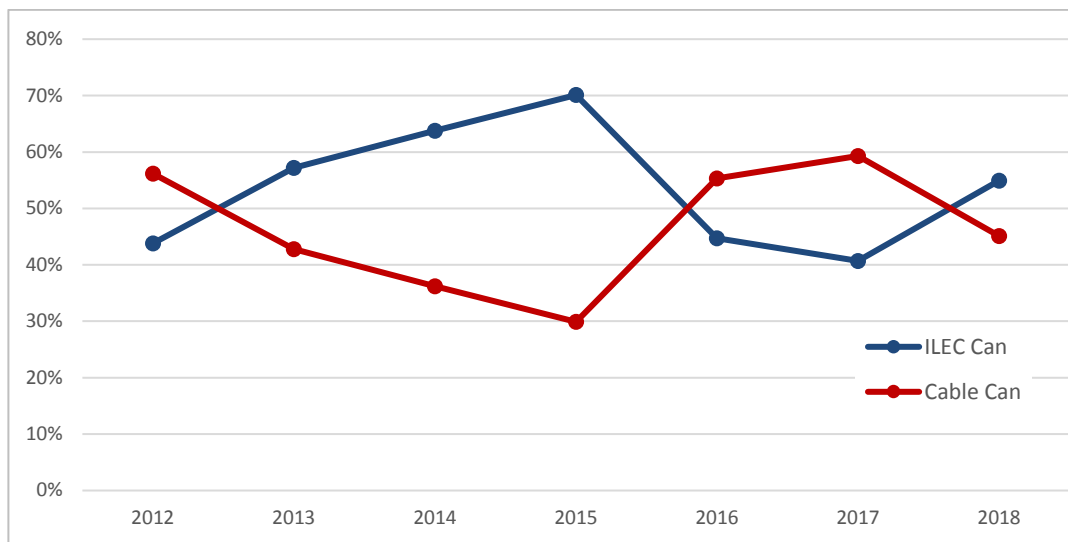
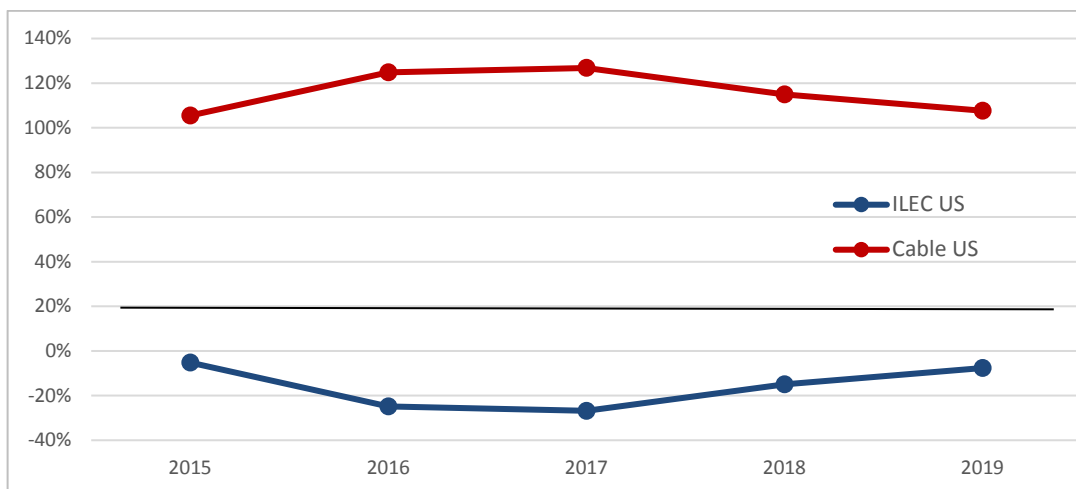


Figure 11

Share of Broadband Net Additions in the US (2015-2019)¹¹³



¹¹² Company reports (BCE, Rogers, Quebecor, Telus, Shaw, Cogeco, MTS); UBS, Communications & Media Playbook (12 October 2018).

¹¹³ *Ibid.*

202. This obvious contrast highlights the importance of facilities-based competition policies that support investment, not just to improve Canada's infrastructure and economic competitiveness but to continue to deliver to consumers the immediate benefits of a dynamic retail market.

Pricing trends

203. Facilities-based competition is also reducing pricing over time. For example, according to a recent study by economic analysis firm Wall Communications, prices for packages offering speeds of over 100 Mbps have fallen by 10% since this bucket was first tracked in 2016.¹¹⁴ A Canadian Press headline from July 2018 summarizes the dynamic: "Bell, Rogers slash prices of gigabit-speed internet in bid to woo customers".¹¹⁵

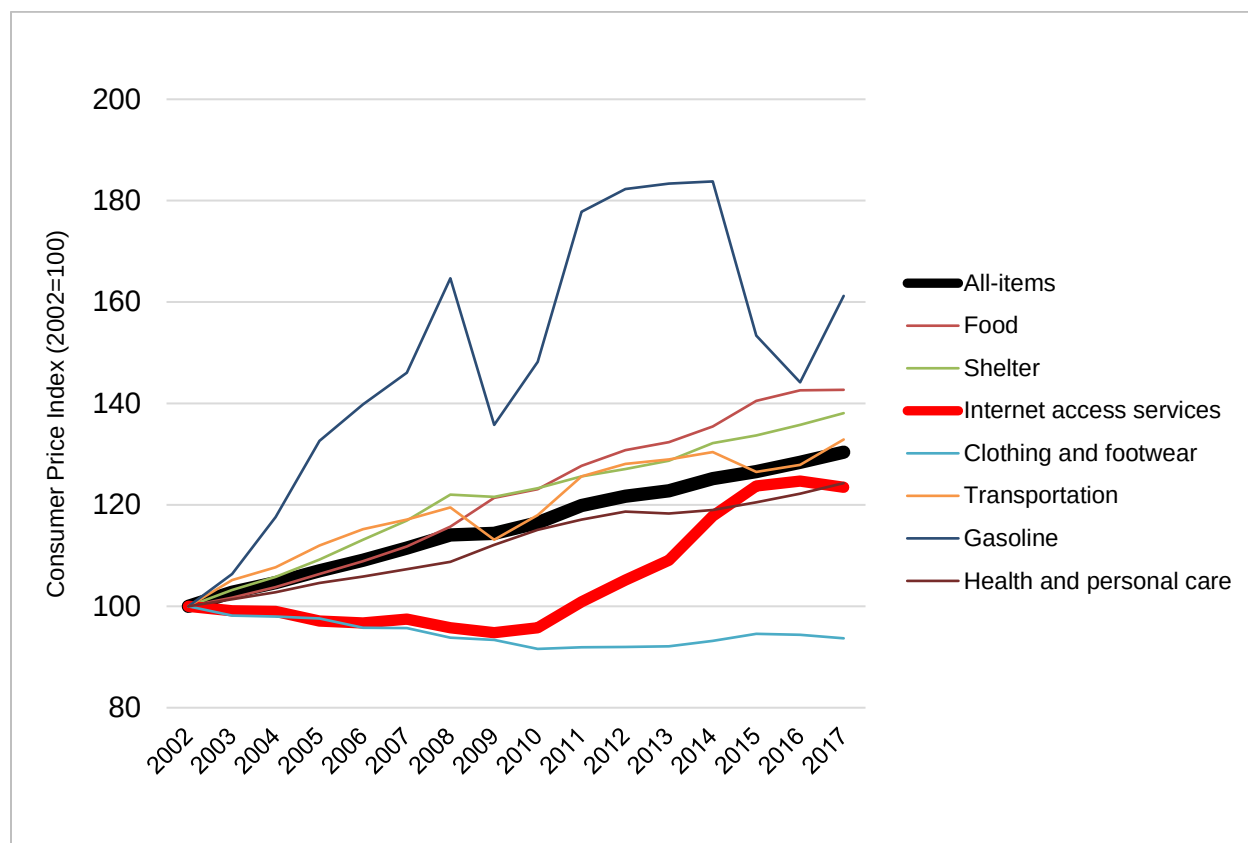
204. Statistics Canada reports that prices for "Internet access services" have declined in real dollars (i.e., have been rising more slowly than the consumer price index (CPI)) since 2002). In fact, Figure 12 below shows that Internet access services prices have risen more slowly than gasoline, food, shelter and transportation and have not increased at all since 2015.¹¹⁶

¹¹⁴ Wall Communications Inc., *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions* (August 29, 2018) page 72.

¹¹⁵ David Paddon in the Canadian Press (July 5, 2018).

¹¹⁶ Statistics Canada, CANSIM Table 18-10-0005-01.

Figure 12
Price History (2002-2017)



4.1.5 The need to recommit to facilities-based competition

205. Mandatory access to wholesale broadband services was imposed in the late 1990s and early 2000s as a replacement for dial-up service providers, when facilities-based competition was in its infancy and the networks being accessed were exclusively legacy networks built largely under monopoly conditions.

206. The circumstances and public policy challenges in 2019 are entirely different. Facilities-based competition is well-established, intense, and poised to expand rapidly with 5G wireless options. Networks have been comprehensively upgraded and, in the case of FTTP, are being built from the ground up in a competitive environment. The public policy challenge is to encourage network builders to deploy FTTP to the very large segment of the population that does not already have it. In particular, Government should seek ways to incentivize network builders to deploy FTTP in rural areas or urban and suburban neighbourhoods that are higher cost to serve and where the business case for investment is weaker.

207. To meet this challenge it is critical to adopt policies that maximize the benefits of facilities-based competition. Massive investments are required by ILECs and cable companies to rebuild networks using fibreoptics.

The impact of resale competition on FTTP investment

208. Mandated access undermines the incentives and ability of facilities-based providers to continue to invest in existing and new networks and technologies by harming the business case for engaging in such investments. Specifically, mandated wholesale access reduces the potential revenue from investing in new network infrastructure. In turn, this reduces the pool of capital available for investment and the proportion of the remaining capital that is directed to fixed broadband infrastructure. This most prominently affects smaller towns and rural areas as well as higher-cost neighbourhoods in larger centres, where FTTP deployment will be delayed or not take place at all.¹¹⁷

209. In our own case, the significant capital expenditures to construct an entirely new FTTP access network are typically economically justified where the company receives revenues from other services in addition to Internet. Investment plans have therefore been premised in large measure on "winning the broadband home"; that is, providing the customer with a suite of services which includes Internet, television, home phone, and home monitoring.

210. Compared to the telephone networks Bell began building in 1880, and cable networks built many decades ago, the significant up-front costs associated with FTTP may never be fully recovered given the competitive environment. As a technical matter, FTTP network is almost fully built out to every home in an area before the operator can begin offering service in that area. The FTTP provider therefore starts with no customers on its new FTTP network and to justify the investment must compete to win incremental customers from well-established cable

¹¹⁷ To illustrate the fragility of the investment case for FTTP deployment, even in the absence of wholesale regulation, San Francisco (with a vibrant Internet sector and high demand for advanced broadband services) is not guaranteed to receive ubiquitous FTTP coverage, with a report for the city noting that "AT&T is also upgrading its infrastructure to fibre in many parts of San Francisco, but it's unlikely that the upgrade will be citywide or ubiquitous. AT&T's upgrades in many cities thus far have been incremental and concentrated in select neighborhoods, sometimes based on where AT&T already has fibre and can cost-effectively extend it, or on areas where AT&T has reason to build fibre to serve large enterprise customers." Layering on the impact of wholesale regulation on top of the business challenges will certainly have an impact on FTTP deployment. See IMG Rebel and CTC Technology and Energy, Fibre for San Francisco Initiative (October 2017), available online at <https://sfbos.org/sites/default/files/CTC-Deliverable22-final-20171017.pdf>.

companies and then seek to deliver a suite of broadband services (Internet, television, home phone, and/or home monitoring).

211. To the extent that wholesale ISPs relying on mandated access are expected to serve customers that would otherwise be served by the facilities-based competitor, this results in two or more retail revenue streams being replaced by a single wholesale revenue stream. This inevitably results in lower revenues accruing to the facilities owner, reducing the number and scale of FTTP investments that can be undertaken.

212. As set out at paragraphs 179 to 183, above, this concern is not just theoretical but reflects precisely the impact of mandated access in Canada and around the world.

Correcting a regulatory imbalance

213. Despite the changing circumstances and public policy challenges that increasingly point toward facilities-based competition, the regulatory pendulum has increasingly swung toward a resale model in recent years. For example:

- Facilities-based providers have been required to immediately introduce wholesale services to match any speed they plan to introduce at retail, regardless of whether it is necessary to support competition;¹¹⁸
- Wholesale rates have been reduced by up to 90% and are below the costs of facilities-based providers even under the existing costing framework;¹¹⁹
- Mandated wholesale regulation has now been extended to FTTP, for the first time applying to networks that contain no legacy components at all;¹²⁰ and
- The Commission will mandate wholesale access to both aggregated and disaggregated services in a single market for several years, despite the fact that by definition both cannot at the same time meet the "essential facilities" test the Commission is purporting to follow.¹²¹ This gives resellers the opportunity to engage in additional arbitrage between these two models.

¹¹⁸ Telecom Regulatory Policy CRTC 2010-632, *Wholesale high-speed access services proceeding*.

¹¹⁹ Telecom Order CRTC 2016-396, *Tariff notice applications concerning aggregated wholesale high-speed access services – Revised interim rates*.

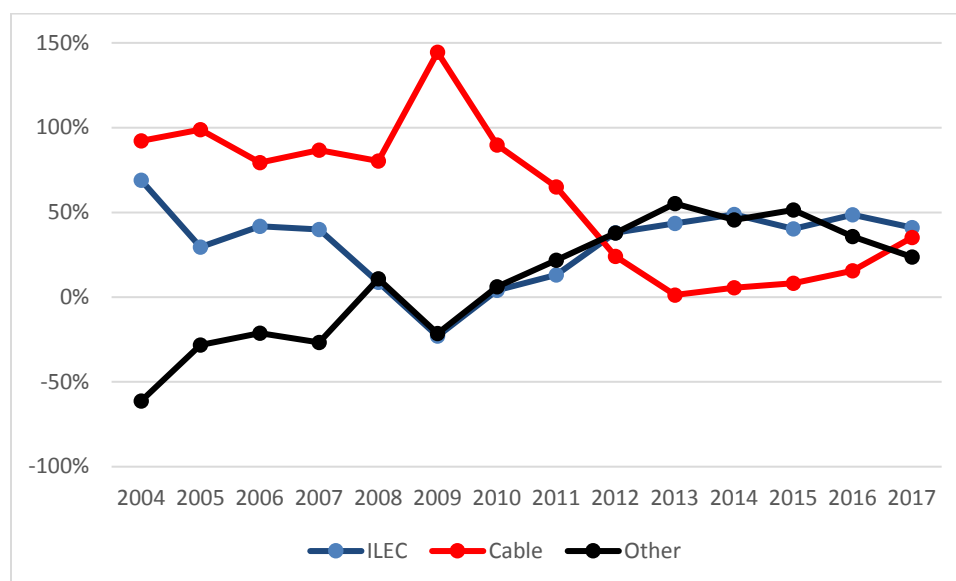
¹²⁰ TRP 2015-326, *Review of wholesale wireline services and associated policies*.

¹²¹ *Ibid.*

214. This has resulted in resellers, who contribute effectively no investment or innovation to the Canadian marketplace, capturing a wildly disproportionate share of net subscriber additions, as Figure 13 below shows. Resellers typically choose to concentrate on serving only Ontario and Quebec. In those two provinces, they have in excess of 20% total market share and likely significantly higher in the urban areas where they focus their sales and marketing efforts.¹²²

Figure 13

Share of Broadband Net Additions (2004-2017)¹²³



215. Resellers captured this significant market share before benefiting from the 90% wholesale rate cut and before wholesale access to FTTP networks has been taken up. With these recent regulatory directives, the situation is reaching a tipping point. If this situation persists and the regulatory and policy-making path is not corrected, the impact on investment could be immediate and dramatic.

216. In section 4.3 below, we recommend policies to address the current imbalance.

¹²² BCE Inc., Comments on "Market Study Notice: Competition in Broadband Services", 31 August 2018, paragraph 30 available at: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04387.html>.

¹²³ Communications Monitoring Reports (Figure 5.1 in CMR 2018).

4.2 Wireless competition and policy analysis

217. Over the course of three decades, it has been repeatedly determined that the wireless market in Canada is competitive.¹²⁴ The cornerstone of wireless regulatory policy throughout this period has been forbearance from regulation and a reliance on the intense facilities-based competition that has emerged through market forces.

218. Indeed, the wireless industry showcases the potential of facilities-based competition. In Toronto, Ontario, the market began with two competitors, Rogers and Mobility Canada, in 1985. At that time, the first wireless customer paid the equivalent of \$5,500 for his device and more than \$20,000 annually for a voice-only service with minimal coverage.¹²⁵

219. Over time, the number of facilities-based competitors increased to four with the entry of Clearnet and Microcell in 1995 and dropped to three when Rogers acquired Microcell in 2005. It increased to six with the entry of Wind (now Freedom), Mobilicity, and Public Mobile in 2009 and 2010. By 2015, it had returned to four, with the failure and subsequent acquisition of Mobilicity and Public Mobile by Rogers and Telus respectively.

220. Despite changes in the number and identity of the competitors, the policy commitment to facilities-based competition throughout this period has ensured continuous expansion of the number, quality, and affordability of services available to Canadians; dramatic reductions in the per-unit prices of wireless services; high wireless penetration; the construction of networks that provide nearly ubiquitous connectivity for a population spread across a vast geography; and the widespread roll-out by multiple providers of at least four new generations of wireless technology.

221. It is therefore not surprising that as recently as 2015 the Commission again determined that the policies of forbearance and facilities-based competition are working and that the retail wireless market is competitive.¹²⁶

¹²⁴ See Decisions 94-15, 96-14; and 2012-556. The Competition Bureau made the same determination when Rogers purchased Microcell in 2005: Competition Bureau, Technical Backgrounder, *Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc.* (April 2005).

¹²⁵ Peter Henderson, "Cellphones mark 30 years in Canada" *The Canadian Press* (29 June 2015).

¹²⁶ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services* (TRP 2015-177).

222. While the introduction of mandated wholesale roaming and the Commission's recent decision¹²⁷ regarding low-cost data-only plans mark minor shifts in Canadian wireless regulatory policy away from forbearance (the results of which are not yet well understood), each is consistent with the most crucial element of Canada's long-standing policy – support for facilities-based competition. Indeed, the Commission has specifically formulated its policy to continue to support facilities-based competition by repeatedly determining that it would not be in the public interest to mandate access for MVNOs:

Investment in wireless network infrastructure by wireless carriers is important to ensure that Canadians have access to mobile wireless networks and services of high quality in all regions of Canada. The new entrants have made and are planning to make significant investments in spectrum and their wireless networks. The Commission considers that mandating wholesale MVNO access at this time would significantly undermine these investments, particularly outside urban core areas.

Accordingly, if the Commission were to mandate GSM-based wholesale MVNO access provided by the national wireless carriers, this permanent network access would likely discourage continued investment by wireless carriers, because they could rely on this access rather than investing in their own mobile wireless network infrastructure.¹²⁸

223. In the following sections, we provide evidence and analysis to support the Commission's decisions to continue to support facilities-based competition in the wireless market.

4.2.1 Investment

224. Ongoing investment is crucial in wireless markets, and wireless companies in Canada are on the cusp of introducing their fifth generation of wireless technology in thirty years. In the interim, at Bell we have made ongoing investments in LTE-Advanced such that our existing "4G" network delivers faster speeds than most early deployments of 5G, such as in the United States.¹²⁹

¹²⁷ Telecom Decision CRTC 2018-475, *Lower-cost data-only plans for mobile wireless services*.

¹²⁸ TRP 2015-177, paragraphs 121 and 122.

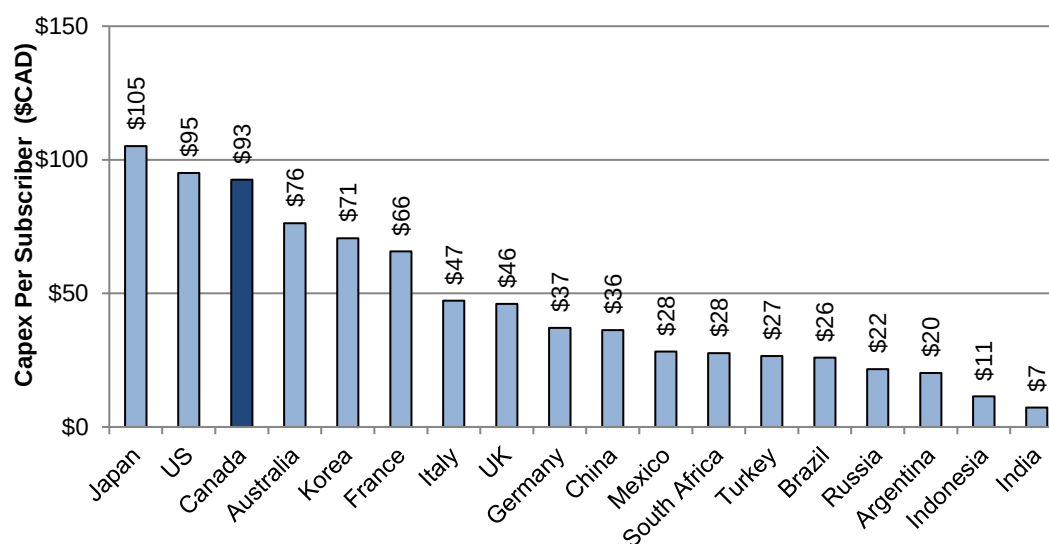
¹²⁹ See e.g. Klint Finley, "AT&T Says It Will (Kinda Sorta) Start Offering a 5G Network" *Wired* (18 December 2018).

225. The only way to continue to provide Canadians with this kind of world class wireless service over the long term is to unlock large, sustained private investments in wireless networks by wireless carriers. In Canada, carriers have invested over \$49 billion in capital expenditures since 2006.¹³⁰

226. These investments are large even by global wireless industry standards, reflecting the intensity of competition among facilities-based carriers in Canada's wireless market. On a per subscriber basis, Canada has invested more in the last five years than all European countries in the G20. Figure 14 below shows that Canada ranks third overall in the G20 in average wireless capital expenditures per subscriber.

Figure 14

Average Capital Expenditures Per Subscriber (2009-2017)¹³¹



¹³⁰ Capex estimates are from IDC Canada, *Canadian Communications Service Provider Capex Budgets, 2016 – 2017* (April 2017) IDC #CA41245817, Table 11, page 62. This amount includes spectrum investments.

¹³¹ Calculation divides the capital expenditure of the three largest providers in terms of subscribers by the total number of subscribers for those providers. However, when the numbers are not available the top two providers are used. This is the situation for Brazil, China, Russia, and South Africa. Note that Saudi Arabia is not included because Capex is not available for the years 2009-2011. Bank of America Merrill Lynch *Global Wireless Matrix: Outlook positive, better top-line growth expected in '18/'19 led by EM improvement 4Q17* (9 April 2018).

227. The need for large wireless investments will persist. Network technologies evolve quickly (e.g., from Code Division Multiple Access to high-speed packet access to LTE to LTE-Advanced to 5G, all in the span of approximately 10 years), so next-generation networks must constantly be deployed to meet consumer demands. The rapid growth in network usage from wireless Internet/data/video applications demands continual investment in additional capacity through spectrum, antenna towers/sites, backhaul capability, and efficient traffic management capabilities. Adding to the investment challenge is the fact that Canada has the second-lowest population density in the G20¹³² (and the vast majority of the geography consists of rural areas), making it particularly expensive to build wireless network here.

4.2.2 Access to advanced networks and innovative services

Deployment of advanced networks

228. The vast majority of Canadians have access to some of the most advanced wireless networks in the world. For example, in 2017 we increased Canada-wide LTE coverage to 99%, marking the first time that a wireless technology has provided near-ubiquitous broadband coverage across the national population. We also launched that year North America's first Quad-band LTE-Advanced service, capable of delivering peak speeds of up to 1.1 Gbps. Importantly for Canada, this world-leading advanced wireless service is not just available in the largest communities but already reaches 92% of the Canadian population.

229. We are also forging ahead with 5G and other advanced services to keep Canada on the leading edge. We undertook Canada's first 5G trials in 2016. We continue to introduce the newest technologies into our networks, including 256 quadrature amplitude modulation (QAM) and 4x4 Multiple Input Multiple Output (MIMO), and will support Licensed Assisted Access (LAA). In early 2018, we successfully tested network technology capable of reaching peak speeds of 1.5 Gbps, and subsequently launched Gigabit-plus LTE speeds commercially.

¹³² Population density is equal to the total population as of 2016 divided by the total land mass in square kilometers. Data from the CIA World Fact Book available online at <https://www.cia.gov/library/publications/the-world-factbook/index.html>.

Adoption of advanced networks

230. Canadian wireless subscribers enjoy some of the most advanced wireless networks that have been made available in the world. Based on data collected from users, OpenSignal found that "Canadian wireless subscribers enjoy the fastest average mobile download connection speeds in the G7, including twice the average speed found in the United States. [emphasis added]"¹³³ This is consistent with the findings of PC Mag that Canada has "the fastest 4G LTE speeds we've ever seen in North America... Along with Kingston, we saw blazing speeds in Montreal, Toronto, Halifax, and even St. John's, NL. [emphasis added]"¹³⁴

231. These speeds are not just attainable in the biggest cities. We have invested in Quad-Band LTE-Advanced technology in communities ranging from Bay Roberts, Newfoundland and Labrador to Lake Echo, Nova Scotia to Welland, Ontario. Our network in communities such as these is as fast or faster than networks in New York, Singapore, Budapest, Melbourne, Sydney, Stockholm, Dubai, Shanghai, Los Angeles, Vienna, Milan, Madrid, Zurich, Beijing, Rome, Paris, Berlin, London, Tokyo, Hong Kong, and Rio de Janeiro.¹³⁵

4.2.3 Penetration and affordability

Penetration

232. There are approximately 33 million wireless subscribers in Canada¹³⁶ or one subscription for every Canadian 10 years of age or older.¹³⁷ Today, the market is driving the number of subscribers even higher (for example, there has recently been a significant focus on discount pre-paid brands in the marketplace). These efforts are generating results – the wireless industry in Canada added significantly more subscribers in the first three quarters of 2018 than it did in all of 2017, 2016, or 2015.

¹³³ OpenSignal, State of LTE – Global (February 2018), available online at: <https://opensignal.com/reports/2018/02/state-of-lte>.

¹³⁴ PC Mag, Fastest Mobile Networks Canada 2018, available online at: <https://www.pcmag.com/article/363549/fastest-mobile-networks-canada-2018>.

¹³⁵ Based on Ookla's analysis of Speedtest Intelligence data from 1 January to 31 March 2017.

¹³⁶ CWTA, Subscriber Stats (Q3 2018), available online at <https://www.cwta.ca/wp-content/uploads/2018/11/Sub-Stats-2018-Quarter-3-EN-Web.pdf> (this data excludes subscribers of Eastlink, Ice Wireless, Xplornet, or others that do not report their subscribers publicly).

¹³⁷ Statistics Canada, "Population Estimates on July 1st, by age and sex", available online at <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>.

233. Despite this, Canada's mobile penetration rate is sometimes criticized in comparison to certain other countries. These comparisons are misleading, however, because given the way that penetration is calculated they do not reveal anything relevant about the underlying dynamics of the market. In particular, penetration calculated by dividing the total number of subscriber identification module (SIM) cards by the total population appears lower in Canada due to: (i) the absence of termination charges eliminating an economic incentive to hold multiple SIM cards (in Europe and elsewhere consumers hold multiple SIMs to avoid paying additional charges when calls are terminated on a different carrier's network, whereas there have never been such termination charges in Canada); (ii) Canadians making greater use of post-paid plans¹³⁸; and (iii) the pre-paid plans available in Canada offering better pre-authorized payment and top-up capability such that prepaid users maintain a single connection. Moreover, children make up a greater proportion of the Canadian population than in most European countries.

234. For these reasons, the GSMA notes that "multiple connections ownership has been distorting mobile market penetration figures for many years."¹³⁹ As a result, the GSMA prefers to examine unique mobile subscribers which are "defined as an individual person that can account for multiple '*mobile connections*' (i.e., SIM cards)."¹⁴⁰ Figure 15 below shows that based on unique mobile subscribers, penetration in North America is within a few percentage points of Europe and ahead of many other regions.

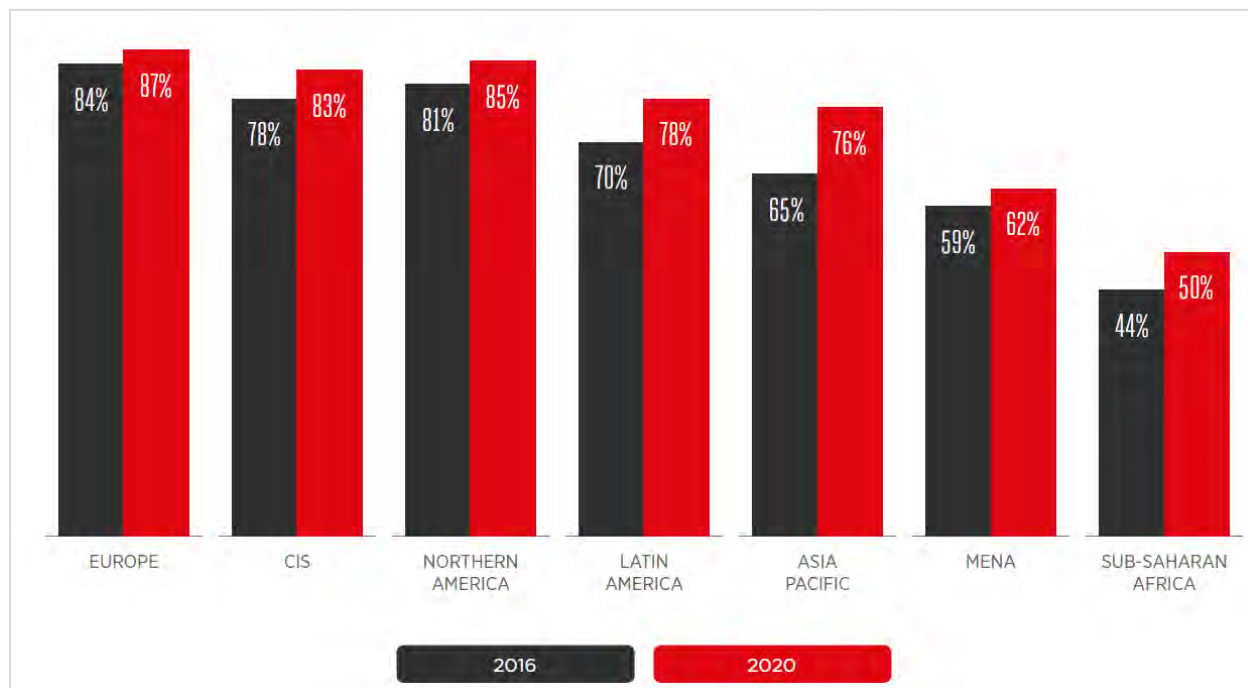
¹³⁸ As noted by the GSMA, "the ratio of SIM cards per person varies significantly by region, with an average of nearly two in many developing regions, where prepaid plans are the norm." See GSMA, *The Mobile Economy 2017*, page 12. Available online at <https://www.gsmaintelligence.com/research/?file=9e927fd6896724e7b26f33f61db5b9d5&download>.

¹³⁹ Josh Gillet, "Measuring mobile penetration" (22 May 2014), available online at <https://www.gsmaintelligence.com/research/2014/05/measuring-mobile-penetration/430/>.

¹⁴⁰ GSMA "NUMBER OF MOBILE SUBSCRIBERS WORLDWIDE HITS 5 BILLION", (13 June 2017), available online at <https://www.gsma.com/newsroom/press-release/number-mobile-subscribers-worldwide-hits-5-billion/>.

Figure 15

Unique Subscriber Penetration by Region¹⁴¹



Affordability

235. Direct comparisons of prices across markets can be challenging, as they need to reflect currency adjustments, differences in purchasing power, differences in tax treatment, and offer structures (included usage, long distance and call termination charges, handset subsidies, regulatory fees, etc.). They also need to account for differences in income, GDP and network quality.

236. To assess the affordability of wireless services in Canada for those for whom affordability is the most important factor – low income Canadians – the Wall Report in Attachment 4 compares the ratio of low-price voice, text and data plans to income for various countries. This ratio ranges from 1.3% to 3.2% in the countries studied, with Canada at 1.7%.

¹⁴¹ GSMA, *The Mobile Economy 2017*, page 12.

Available online at

<https://www.gsmainelligence.com/research/?file=9e927fd6896724e7b26f33f61db5b9d5&download>. Note that as of Q4 2016, in Canada the percentage of unique mobile internet subscribers was 77.5% and for the United States it was 82.5%.

As the Wall Report says, "[w]e conclude that Canada compares favourably with other countries in terms of cost of service relative to low income thresholds."¹⁴²

4.2.4 Market dynamics

237. The best evidence of the success of facilities-based competition in the Canadian wireless market is that the market displays all of the attributes of intense, dynamic competitive rivalry, including an increasingly diverse range of consumer offerings, extensive promotional activity, and price competition.

Diverse range of consumer offerings

238. Over a little more than ten years, facilities-based carriers in Canada have significantly expanded their brand portfolios to focus on a growing number of segments of the wireless market.

239. In particular, following Rogers' acquisition of Fido in late 2004, we launched Virgin Mobile in 2005, and Telus launched Amp'd Mobile in 2007 and then replaced it with Koodo Mobile in 2008. In 2009 and 2010 new facilities-based carriers including Wind Mobile (now Freedom Mobile), Quebecor, and Eastlink launched. Rogers also launched its discount Chatr brand in 2010. In 2013, Telus acquired and significantly expanded Public Mobile as a discount brand. In 2017, we launched Lucky Mobile to compete for customers who value low prices and large data buckets over other features such as cutting-edge network speeds, extensive customer service options, and subsidized devices. Recently, Quebecor launched Fizz Mobile to further expand the options available to consumers, and Xplore Mobile has launched service in Manitoba.

240. The responses of each facilities-based carrier to the market initiatives of its competitors have driven this expansion in wireless choices. As a result, consumers can access a wide range of pre-paid and post-paid, voice and data, 3G and LTE / LTE-Advanced plans catering to every customer segment. The following chart provides illustrative examples of the plans that are available in the market:¹⁴³

¹⁴² Wall Report, page 3.

¹⁴³ Plans below are current as of 19 December 2018; based on the providers' online webpages.

Figure 16

Range of Plans Available to Consumers							
CW = Canada Wide; CQ = Local Calls; PP= Per Person							
							
\$45	6GB	Unltd CW Calls	Unltd CW & Intl Txt	\$40	4.5GB	Unltd CW Calls	Unltd CW&Intl Txt
\$10	N/A	50 min CW Calls	50 CW & Intl Txt	\$10	N/A	50 min CW Calls	50 CW&Intl Txt
							
\$50	8GB	Unltd CW Calls	Unltd CW & Intl Txt	\$90	20GB	Unltd CW Calls	Unltd CW&Intl Txt
\$20	N/A	Unltd Local Calls	Pay-Per-Use	\$15	N/A	100 min CQ Calls	Unltd CW&Intl Txt
							
\$56	10GB	Unltd CW Calls	Unltd CW & Intl Txt	\$50	4 GB	500 CW Calls	Unltd CW & Intl Txt
\$35	3GB	Unltd CW Calls	Unltd CW & Intl Txt	\$30	1 GB	N/A	Unltd Incoming
							
\$100	15GB	Unltd CW Calls	Unltd CW & Intl Txt	\$67 PP (Share Plan)	9 GB	Unltd CW Calls	Unltd CW & Intl Txt
\$45	2GB	500 min CQ	Unltd CW & Intl Txt	\$25	100 MB	50 min CW Calls	100 Txt
							
\$75 PP (Share Plan)	6 GB	Unltd CW Calls	Unltd CW & Intl Txt	\$75 PP (Share Plan)	18 GB	Unltd CW Calls	Unltd CW & Intl Txt
\$35	N/A	Unltd Local Calls	Unltd CW & Intl Txt	\$45	N/A	Unltd CW Calls	Unltd CW & Intl Txt

241. An ongoing investment in new service offerings is a feature of a highly competitive market and would be inconsistent with a market in which market forces were not operating effectively.

242. Moreover, these services are available in more than 4,750 retail locations selling access to wireless services today in Canada – more than all of the Tim Hortons and Canadian Tire locations in Canada combined. Clearly wireless carriers are competing to offer the best possible service for existing and potential customers.

Promotional and marketing activity

243. Extensive promotional and marketing activity is also evidence of a market that is subject to strong competitive rivalry. In connection with a previous regulatory proceeding,¹⁴⁴ we conducted an extensive review of news releases related to wireless services issued by Bell, Rogers, Telus, Wind/Freedom, Quebecor, and Eastlink since 2009. In that previous regulatory proceeding, the evidence highlighted numerous instances where wireless carriers have publicized initiatives to:

- expand the scope of their activities in terms of products, services and geographic boundaries;
- upgrade their networks to provide new and higher quality services;
- differentiate their services through the exclusive distribution or early release of wireless devices;
- offer price promotions or price reductions to attract new customers;
- introduce new services or features before competitors; and
- a variety of other initiatives.¹⁴⁵

244. For the same Commission proceeding, we analyzed the number of unique print, television/English radio, and digital advertisements in Canada since January 2016. Based on this evidence, the Commission concluded that there is "demonstrate[d] rivalrous behaviour between wireless carriers in the retail market."¹⁴⁶ We have updated the original analysis and provided the findings in Appendix 1. The analysis leads to the same conclusion it did previously: there is strong rivalry within the competitive wireless market. The ads reflected in Appendix 1 include evidence of the following types of rivalrous behaviour:

- Providing a cash credit to customers who switch providers;
- Offering lower prices and/or more value for the same price;
- Offering discounts on new phones if the customer trades-in an old phone;
- Promoting \$0 smartphones; and
- Providing discounts on new smartphones for new customers.

¹⁴⁴ TRP 2015-177.

¹⁴⁵ Attachment 3 to Bell Mobility's Intervention to Telecom Notice of Consultation CRTC 2017-259 "Reconsideration of Telecom Decision 2017-56 regarding Final terms and conditions for wholesale mobile wireless roaming service" 8 September 2017 available at <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=241087&en=2017-259&dt=i&lang=e&S=C&PA=t&PT=nc&PST=a>.

¹⁴⁶ TRP 2015-177, paragraph 34.

245. The examples show that wireless carriers attempt to distinguish themselves from each other and gain a competitive advantage on every potential dimension, including by offering the lowest prices and the services best suited to each consumer's needs.

Price competition

246. Declining prices are also an indication of rivalrous behavior. Figure 17 below summarizes an analysis of wireless price reductions for us (including Virgin), Rogers (including Fido), Telus (including Koodo), Eastlink, Quebecor, and Wind/Freedom from 1 January 2017 to 30 September 2018. This excludes the extensive price reductions associated with our Lucky brand, the Rogers' Chatr brand, and Telus' Public Mobile brand.

247. The counts in Figure 17 include reductions related to hardware and rate plans. With respect to rate plans, we have provided data for both the reduction in price of an existing plan and for an increase in the data included in a plan at its existing price (which is effectively a reduction in the price of a plan that includes more data).

Figure 17
Number of Wireless Price Reductions and Effective Reductions
1 January 2017 to 30 September 2018

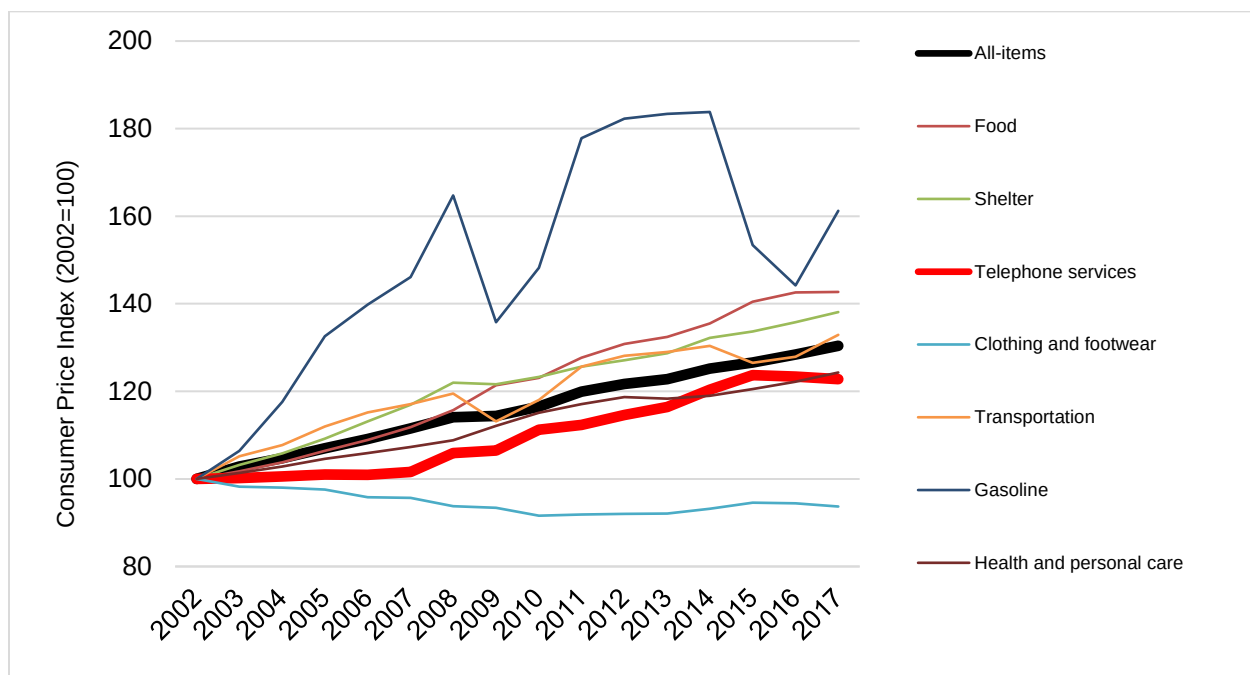
Month	Hardware	Rate Plans		Total
		Lower Price	More Data	
2017				
Jan	156	4	0	160
Feb	89	0	18	107
Mar	320	6	6	332
Apr	95	0	3	98
May	135	27	17	179
Jun	295	12	19	326
Jul	100	6	25	131
Aug	173	8	5	186
Sept	134	4	16	154
Oct	73	2	32	107
Nov	277	1	18	296
Dec	202	5	54	261
2018				
Jan	256	5	10	271
Feb	102	8	23	133
Mar	182	7	21	210
Apr	175	7	29	211
May	535	0	16	551
Jun	500	0	1	501
Jul	394	12	20	426
Aug	467	8	42	517
Sept	572	1	0	573
Total	5,232	123	375	5,730

248. In total, there were 5,730 price reductions identified in less than a two year period, representing a high level of competitive pricing activity.

249. As was the case with broadband in Figure 12, above, Statistics Canada reports prices for "telephone services", which include wireless services. These prices have declined in real dollars (i.e., have been rising more slowly than the consumer price index (CPI)) since 2002. In fact, Figure 18 below shows that telephone service prices have risen more slowly than food, shelter, transportation and gasoline and have not increased at all since 2015.¹⁴⁷

Figure 18

Wireless and Wireline Telephony Price History (2002-2017)



250. Given the low growth rate of nominal prices, the per-unit price of wireless services (i.e., accounting for increasing scope and volume of services used) has declined over the last 15 years.

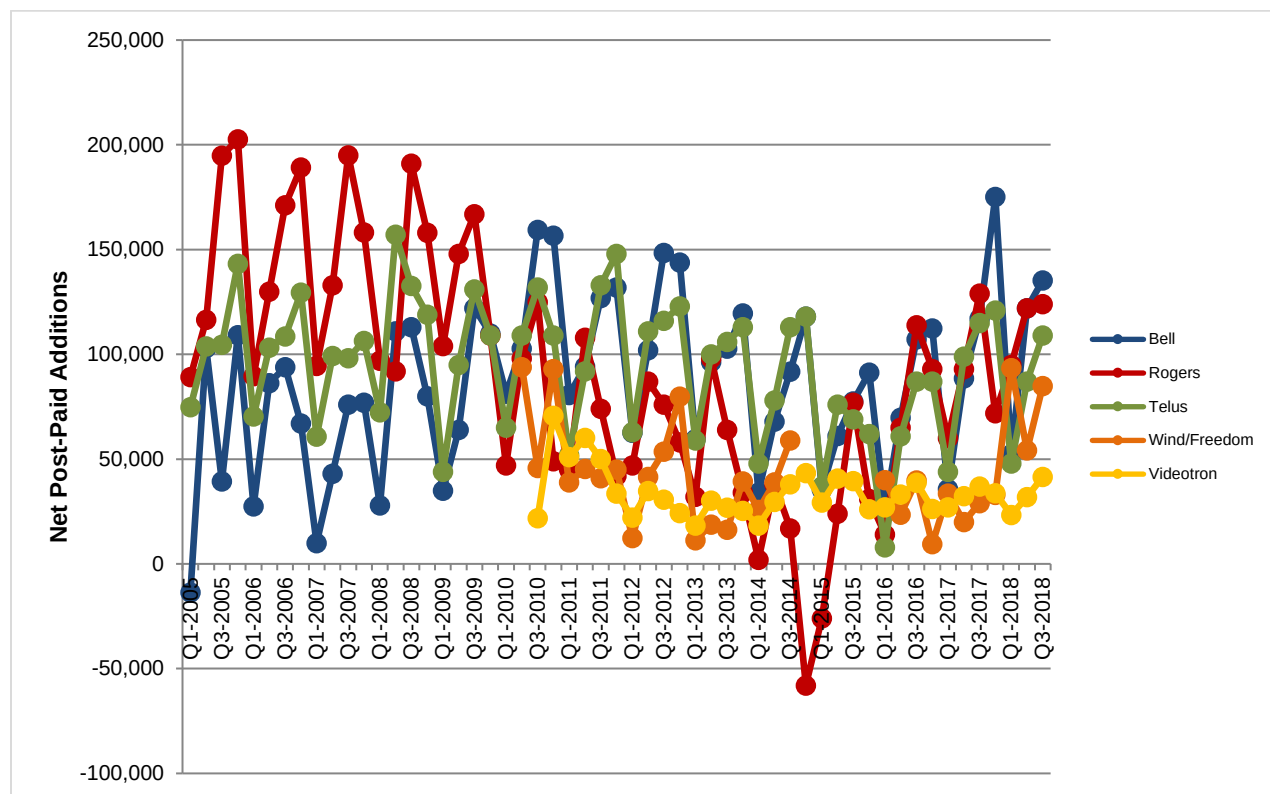
¹⁴⁷ Statistics Canada, CANSIM Table 18-10-0005-01.

Competition to add subscribers

251. As shown in Figure 19, the rivalry in the Canadian wireless market is evident in the outcomes of the ongoing battle for subscribers, with different carriers pulling ahead and falling behind at different times and new entrant carriers in particular maintaining strong subscriber acquisition performance (particularly given that each individually has a relatively smaller footprint and addressable market).

Figure 19

Postpaid Net Subscriber Additions (Q1-2005 to Q3-2018)¹⁴⁸



252. These fluctuations reflect the competitive rivalry among all carriers, as they use price reductions, innovations, technological changes, and advertising and promotions to gain a competitive advantage in the quest to win subscribers. Competition among wireless providers has resulted in the average data usage per subscriber to increase over 160% since 2014.¹⁴⁹

¹⁴⁸ CWTA, "Facts and Figures", available online at <https://www.cwta.ca/facts-figures/>.

¹⁴⁹ CMR 2018, Figure 6.15.

4.2.5 The need for regulatory certainty

253. These strong market outcomes have emerged from a consistent commitment over three decades to the policy of facilities-based competition. This policy – and the fact that market participants have been confident they can rely on it – has supported investment in the wireless market that has provided Canadians with both early access to the most advanced wireless networks in the world and a choice of wireless services from more than ten brands offering options to suit every consumer segment.

254. As discussed below, the Panel's review comes at a time when it is particularly critical to maintain the certainty associated with this policy.

Four facilities-based competitors

255. Since 2008, the Government of Canada has promoted the entry of new facilities-based competitors in every region of the country. A decade of sustained regulatory effort and over \$4 billion in public subsidies (in the form of reduced spectrum auction payments) have been invested in that policy.¹⁵⁰ For their part, the carriers that entered in reliance on the policy have themselves invested approximately \$7 billion and extensive strategic and management energy to enter the market.

256. Given how competitive the wireless market in Canada already was, it is unclear whether the benefits of this policy will ever outweigh these costs but nonetheless the reality is that every region of Canada now has four facilities-based wireless competitors. Today's entrant carriers have strong financial capabilities with ready access to capital and large existing subscriber bases from multiple products. They have attracted more than 2.5 million customers and addressed areas of competitive disadvantage (e.g., Freedom Mobile now offers iPhones) to ensure they continue to grow.

257. Nevertheless, some observers continue to call for a mandated resale regime to be introduced into the Canadian wireless market. Such a policy would significantly undermine Canada's successes in the wireless market, with no corresponding benefits. That is why our first priority recommendation, as set out above, was to amend the legislation to provide that

¹⁵⁰ Based on internal estimates and information from IDC, "Canadian Communications Service Provider Capex Spending, 2017-2018" page 39 and 40.

such a departure from facilities-based competition can only occur following a clear, objective demonstration of market failure sufficient to justify it.

258. Even the threat of regulation-based resale entry would have an immediate and potentially devastating effect on facilities-based carriers and competition in the market. Entrant carriers are risking vast amounts of private capital to build out their networks and compete in the wireless industry, and it is uncertain that those investments will be recouped. It is impossible to imagine that such investments would continue if: (i) those carriers would have to compete with resellers that do not make any investments; and (ii) the carriers themselves could simply resell services on an existing network.

259. Undoing three decades of commitment to facilities-based competition and ten years of investment and regulatory effort to support additional facilities-based competitors to now pursue a policy based on resale would come with no corresponding benefits. As the CRAI 2017 Report previously determined based on an analysis of ten years of data from 15 countries:

[Mandated] MVNO access did not cause a material increase in the growth rate of mobile penetration in any country where such access was mandated. Instead, the slope of the line showing penetration rate growth over time is not steeper after mandated access was provided to MVNOs [and] the rate of growth in penetration continued on its earlier path even after mandating MVNO access.¹⁵¹

Investment in 5G

260. Undermining facilities-based competition by moving toward mandated resale would very likely prevent Canada from keeping pace with other countries in the deployment and adoption of 5G, which Minister Bains has noted is crucial for Canada's economy.¹⁵² Not only will 5G be an important enabler for the digital economy – with an annual contribution to GDP of \$40 billion by 2026 – but it will create 250,000 permanent jobs and 150,000 additional jobs associated with the deployment.¹⁵³ Accordingly, the risk of delaying or reducing the extent of Canada's 5G deployment is one we must avoid.

¹⁵¹ CRAI 2017 Report, page 15.

¹⁵² Bell Canada, "Bell and Nokia complete first Canadian trial of 5G mobile technology", (29 July 2016), available online at <http://www.newswire.ca/news-releases/bell-and-nokia-complete-first-canadian-trial-of-5g-mobile-technology-588663571.html>.

¹⁵³ Accenture, *Fuel for Innovation*, 2018.

261. Canada is in a strong position with respect to the evolution of wireless to 5G today. Indeed, OpenSignal concluded in 2018 that:

There's no question Canada is a global 4G superpower today. That likely means there are few other countries better prepared than Canada to deploy the 5G networks of the future.¹⁵⁴

262. We completed Canada's first 5G trial in July 2016. We are already rolling out WTTT coverage that has a clear path to 5G. With a continued commitment to facilities-based competition and appropriate spectrum management, we are prepared to maintain Canada's world-leading position.

263. The costs of transitioning to 5G will be significant and sustained. As of today, Canadian carriers are prepared to incur those costs (as we have done with every other generation of wireless technology), but a lack of commitment to the policy of facilities-based competition will be particularly problematic. As the CRAI 2018 Report sets out, based on well-established and widely accepted independent academic empirical work studying 21 countries over eight years, mandating access to wireless resale can reduce investment intensity by up to 17%. In the present circumstances in Canada, that means a move toward resale could result in the loss of more than \$350 million annually in wireless capital expenditures.¹⁵⁵

264. Losing more than \$350 million in annual wireless investment will undoubtedly leave Canada permanently behind in this transition just as it happened to Europe with the movement to 4G a decade ago.

265. Indeed, European wireless markets offer a particularly cautionary tale:

- Dr. Georg Serentschy, the former CEO of the Austrian Telecom Regulator and Chairman of the Body of European Regulators for Electronic Communications argued in his report that "[a]fter Canada's long and successful history of an investment-friendly wireless

¹⁵⁴ OpenSignal, State of Mobile Networks: Canada (February 2018).

¹⁵⁵ Figure 4.6 of the Communications Monitoring Report 2018 indicates that in 2017 the capital intensity (i.e., wireless capital expenditure divided by wireless revenues), for wireless providers was 9%. Applying a reduction of 17.1% to the 2017 capital intensity of 9% implies that mandated MVNO access would reduce capital intensity to 7.46% ($= (1 - 0.171) \times 0.09$). Using the capital expenditures and wireless revenues from Infographic 4.5 and Infographic 4.1 from the Communications Monitoring Report 2018 respectively, this results in a reduction of \$380 million in capital expenditures ($= \$2.3 \text{ billion} - (\$25.8 \text{ billion} \times 0.0746)$). This new level of capital intensity then occurs every year going forward.

broadband regulatory regime based on facilities-based competition, changing Decision 2017-56 would be disruptive and harmful to Canadian consumers in terms of reducing both broadband quality and availability; Europe's failed policies have proven to be detrimental to European citizens and business, harmful to the innovation climate... and negative for the investment climate [emphasis added]"¹⁵⁶

- Marc Furrer, the former president of the Swiss communications regulator, notes in his report that "[o]ne should not intervene in markets which work – especially not when a country depends on the investments of the market players. This is especially the case in challenging markets, like a telecom market with a lot of rural areas with low population density (like in Switzerland). There it needs special incentives for the market players to invest into the infrastructure on their own initiative – added regulations don't help the users nor the industry. If there are three or even four facilities-based Mobile Network Operators any regulation in this area should not be necessary. That at least is the lesson learnt in Europe. [emphasis added]"¹⁵⁷

266. Now is the time to secure Canada's 5G future, not put it at risk.

4.3 Recommended changes to the Telecommunications Act

267. In this section we explain the changes to the *Telecommunications Act* that we encourage the Panel to recommend. These changes are designed to reflect the developments in the market and industry since the *Telecommunications Act* was introduced. Taken as a whole, they are designed to support Canadians' access to next generation networks, eliminate any related barriers to access, and guide the Commission away from detailed economic and technical regulation toward regulation that is focused on reliance on market forces, protecting the rights of digital consumers, including accessibility and consumer protection.

268. We explain most of our recommended changes in this section. They are all also reflected in Attachment 1, which is an annotated mark-up of the existing *Telecommunications Act* showing the specific changes corresponding to our recommendations.

¹⁵⁶ Final Comments of Bell Mobility Inc. – Serentschy Report, *Reconsideration of Telecom Decision 2017-56 regarding Final terms and conditions for wholesale mobile wireless roaming service*, page 5.

¹⁵⁷ Final Comments of Bell Mobility Inc. – Furrer Report, *Reconsideration of Telecom Decision 2017-56 regarding Final terms and conditions for wholesale mobile wireless roaming service*, paragraph 9.

4.3.1 Telecommunications policy objectives

269. Section 7 of the *Telecommunications Act* currently contains a list of objectives that have not provided the Commission with clear direction in how to exercise its jurisdiction. In particular, while Government policy has clearly been to favour innovation through facilities-based competition and market forces, the current objectives are not clear on this point. For example, the language currently set out in section 7(c) merely directs the Commission to regulate "to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications" and is silent on how to do this.

270. This lack of direction has resulted in extensive regulatory intervention by the Commission that produces few if any benefits from resale competition, and does not take account of the measurable harm caused to the ability of facilities-based competitors to invest in innovation and network development.

271. Additional direction was provided to the Commission in 2006 through the Policy Direction, which effectively updated the objectives to reflect the new market-driven nature of the Canadian telecommunications market.¹⁵⁸ Our recommended changes incorporate this direction. They also make explicit that the Commission can and should aim for innovation and access to advanced telecommunications networks, and provide a clear preference for the facilities-based competition that has emerged since these objectives were first crafted more than 25 years ago. Finally, they make clear that one of the Commission's objectives would be responding to the social and consumer protection needs of Canadians such as accessibility and rules regarding disclosure and contracting clarity.

¹⁵⁸ The Policy Direction specifically states as follows:

1 In exercising its powers and performing its duties under the *Telecommunications Act*, the Canadian Radio-television and Telecommunications Commission (the "Commission") shall implement the Canadian telecommunications policy objectives set out in section 7 of that Act, in accordance with the following:

(a) the Commission should

(i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and

(ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives

272. Figure 20 below sets out the language we recommend for section 7. While these changes are consistent with and would support our recommendations under Priority 1, above, they are independent of those recommendations and even if implemented in the absence of any other change to the *Telecommunications Act* would be an improvement to the legislation.

Figure 20

Recommended language for section 7

Objectives 7 It is hereby affirmed that telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty and that the Canadian telecommunications policy has as its objectives (a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions; (b) to provide: (i) timely access to high-quality, innovative, advanced telecommunications networks and services; and (ii) reliable and affordable telecommunications services; to all Canadians in both urban and rural areas in all regions of Canada; (c) to promote efficiency, innovation and investment in facilities-based competition; (d) to promote the ownership and control of Canadian carriers by Canadians; (e) to rely on market forces to the maximum extent feasible, and when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary; (f) to stimulate research and development in Canada in the field of telecommunications; (g) to respond to the social requirements of and to protect users of telecommunications services.
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4.3.2 Modernizing the test for regulation

273. Given that effectively every telecommunications service was provided by a near-monopoly when the *Telecommunications Act* was introduced in 1993, the *Telecommunications Act* provided for a default presumption of regulation, which was intended to help introduce competition. In this regard, section 25 provided that no service could be offered unless it was tariffed. Once competition had developed in an area, the Commission was intended to refrain from regulating services in that area under section 34.

274. As discussed in section 3.1.4, above, to reflect the world that exists in 2019, this structure should be revised to impose regulation not as the default but only after a finding of unjust discrimination and significant market power. This is consistent with the recommendations made by the Telecommunications Policy Review Panel in 2006, which stated in its final report:

Accordingly, the Panel believes the presumption in the current *Telecommunications Act* that telecommunications services provided by Canadian carriers must be regulated unless the Commission forbears should be replaced by a presumption of deregulation for all services. Thus, s. 25 of the Act should be repealed and replaced with a new provision that economic regulation should apply to a service provider in a telecommunications market only if there is a finding that the service provider has SMP in that market.¹⁵⁹

275. This change, which was recommended by the Telecommunications Policy Review Panel more than 12 years ago, would have three benefits. First and most importantly, it would promote a stable and predictable business environment that supports investment and innovation. If there is no objective test for when fundamental economic regulation can be implemented, there is the risk of unpredictability in the regulatory environment. For example, regulation could be imposed based on changing political or other factors rather than an independent assessment of fact-based evidence.

276. Second, because over-regulation is more costly to the economy and does more long-term damage (e.g., to Canada's infrastructure position and the dynamism of competitive markets) than under-regulation, reversing the default position would minimize the risks associated with any potential errors or delays in the regulatory process. As the Telecommunications Policy Review Panel concluded, in the modern communications environment in Canada, over-regulation is much more risky than under-regulation:

With the growth in competition and competitive alternatives in the Canadian telecommunications industry along with rapid technological change, the Panel believes any errors of the second sort will generally be self-correcting. New competition will emerge to challenge most remaining areas of SMP. Canada has reached the point, for the vast majority of retail telecommunications markets, where the potential costs to the Canadian economy of continued regulation outweigh any real benefits.¹⁶⁰

¹⁵⁹ Telecommunications Policy Review Panel, Final Report 2006, section 3-12.

¹⁶⁰ Telecommunications Policy Review Panel, Final Report 2006, section 3-11.

277. Finally, it would help address regulation that persists despite competitive markets or other factors rendering it obsolete. For example, in recent years, the Commission has on multiple occasions explicitly recognized that a wholesale service is no longer required by competitors to serve customers, and approved the discontinuance of these services, yet the Commission insisted that tariffs be retained where the wholesale service is voluntarily offered.¹⁶¹ This is a contradiction that is without economic or policy justification. Similarly, under the current framework the Commission has engaged in "just in case" regulation by attempting to address hypothetical issues that have not occurred.¹⁶² This excess regulation reduces the dynamism of the marketplace and adds unnecessary costs and burdens that are ultimately borne by Canadian consumers.

Ex post approach to economic regulation

278. Regulation through tariffs (i.e., section 25) and provisions requiring similar *ex ante* approvals (e.g., section 29) that served to facilitate the initial transition to a competitive environment are no longer necessary and should be removed.

¹⁶¹ See for example, determinations concerning the following wholesale services:

- Unbundled local loops (TRP 2015-326): At paragraphs 185 and 190 the Commission determines that unbundled local loops may be withdrawn and no longer need to be mandated, but at paragraph 200-201, the Commission continues to maintain regulation for these services if offered.
- Wholesale aggregated high-speed access services (Telecom Regulatory Policy CRTC-326): At paragraph 136-143, the Commission determines that aggregated services should be replaced by disaggregated services, yet in paragraphs 155-156, the Commission continues to mandate aggregated services after the introduction of disaggregated services.
- Pay telephone access line services (Telecom Decision CRTC-133): At paragraph 48, the Commission determines this service should no longer be mandated, yet at paragraph 69-70, continues to require the voluntary provision of this service to remain regulated.
- Line sharing (Telecom Decision CRTC 2018-18): At paragraphs 37-40, the Commission determines that this service no longer needs to be mandated, yet at paragraphs 46-52 continues to require the voluntary provision of this service to remain regulated.
- Wholesale Local Services and Features (Telecom Decision 2008-17): At appendix part f, this service is found to be non-essential to competition, yet at paragraph 13 continues to mandate the service.

¹⁶² See for example, the following determinations:

- Wireless Access Service (Telecom Decision CRTC 2017-172): Although there is little demand for this service, and new entrants provided evidence that they did not require the service, at paragraph 43, the Commission determined to maintain regulation of the service in case it was needed by future new entrants.
- Extended Local Access and Local Transit (Telecom Decision CRTC 2017-171): Although no evidence was presented that this service was required by new entrants, and very little current demand, the Commission determined at paragraph 70 that the service should remain mandated in case the service was required to facilitate future market entry.

279. Instead, we recommend that the Commission ensure Canadians continue to benefit from competitive markets and intervene in cases of market failure through section 27 of the *Telecommunications Act* relating to unjust discrimination/undue preference, including new remedial provisions we propose be added to section 27.

280. Our proposed language for sections 27(1) through 27(3), reproduced in Figure 21 below, prohibits any TSP¹⁶³ from unjustly discriminating or providing an undue preference in the offering of its services. Consistent with adopting a presumption of competition (and with the usual rule that the burden of proof is on the party bringing a claim), the primary change we are recommending in these sections is to remove the current unprincipled and unworkable reverse onus obligation.

Figure 21

Proposal - Unjust discrimination in section 27

Unjust discrimination

27(1) No Telecommunications Service Provider shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.

Questions of fact

27(2) The Commission may determine in any case, as a question of fact, whether a Telecommunications Service Provider has complied with this section or any decision made under section 24, 34 or 40.

Burden of proof

27(3) The burden of establishing before the Commission that any discrimination is unjust or that any preference or disadvantage is undue or unreasonable is on the complainant.

Imposing retail or wholesale regulation

281. Section 27 would be the starting point for any economic or similar regulation. If the Commission determines that there has been a breach of section 27(1) then it can consider either retail or wholesale regulation as a remedy under either section 27(5) or section 27(6), as set out in Figure 22 below.

¹⁶³ The section now refers to "TSPs" rather than "Canadian carriers" for reasons explained below.

282. In both cases, the Commission would only impose regulation where it finds that the party to be regulated has SMP. In the framework, we recommend that all social regulation can be imposed under section 24 on any TSP regardless of market power. Accordingly, SMP is an appropriate trigger for regulation as without it economic regulation will not be necessary or beneficial – in this sense, SMP can be regarded as identifying the circumstances in which an economic preference or disadvantage can reasonably be considered undue.

283. SMP is an international standard used to assess the competitive constraints under which a provider in a market operates. It is commonly employed in Canada's peer jurisdictions. For example, in the Framework Directive¹⁶⁴ the European Parliament and the Council of Europe require national communications regulators to only intervene in markets where a provider is found to have SMP according to competition law principles. A comprehensive set of guidelines directing national regulators on how to assess SMP has also been published.¹⁶⁵ The principles from the Framework Directive are adopted in member states such as the United Kingdom, where the *Communications Act 2003* incorporates a SMP assessment conducted by OFCOM (which may be subject to review by the Competition Appeal Tribunal).

284. Most of the regulatory questions the Commission addresses today relate to the provision of wholesale services, yet the *Telecommunications Act* currently provides no guidance on how to approach wholesale regulation. This is inappropriate given the impact wholesale regulation has on individual businesses and competitive markets.¹⁶⁶ We propose that the *Telecommunications Act* set out as a matter of policy appropriate tests for whether or not regulatory intervention should be undertaken. This guidance is set out in our proposed sections 27(6) and 27(7).

¹⁶⁴ Directive 2002/21/EC.

¹⁶⁵ *Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services*, 2018/C 159/01.

¹⁶⁶ See Section 3.1.3 above. In addition, in the United States, Wilson Barker Knauer found the FCC decision to eliminate mandated access obligations commencing in 2003 led to a precipitous uptick in fibre and x DSL investment (see Attachment 2 to the Intervention of Bell Canada in TNC 2013-551, available online at <https://services.crtc.gc.ca/pub/DocWebBroker/OpenDocument.aspx?DMID=2068512>). For further studies of the impact of wholesale regulation in the United States, see: Kevin A. Hassett & Robert J. Shapiro, *The Impact of Title II Regulation of Internet Providers On Their Capital Investments*, Sonecon, November 2014, available online at http://www.sonecon.com/docs/studies/Impact_of_Title_II_Reg_on_Investment-Hassett-Shapiro-Nov-14-2014.pdf; Kevin A. Hassett & Robert J. Shapiro, *Regulation and Investment: A Note on Policy Evaluation Under Uncertainty: With an Application to FCC Title II Regulation of the Internet*, July 2015, at 18-19, available online at http://cbpp.georgetown.edu/wpcontent/uploads/HassettShapiro_PolicyEvaluationUnderUncertainty.pdf.

285. Section 27(6) reflects the well-established Essential Facilities test that the Commission adopted in 2008 and modified slightly in 2015.¹⁶⁷ That test is derived from competition law precedents and has been generally supported by almost all industry participants (both incumbents and entrants). Where the criteria in this test are not met, there is no negative market impact to be addressed by wholesale regulation.

286. Section 27(7) reflects the type of policy considerations the Commission sometimes applies prior to imposing regulation¹⁶⁸. It ensures there is an appropriate balance between the short-term static benefits of regulation and the longer-term dynamic benefits of facilities-based competition. For example, if resellers can access facilities at cost-based or below-cost rates (i.e., rates that are intended to be cost-based but are reduced unilaterally by the Commission in contradiction to the cost studies conducted by carriers), with no financing commitment and no risk (because costs are not incurred until each customer and the associated revenues are secured), then resellers will have no incentive to invest in their own facilities. Even worse, competitors that would otherwise invest in their own facilities are discouraged from doing so because the mandated access rates result in inefficient short-term competitive outcomes that undermine the investment business case.

287. If mandated access is implemented without taking these possible outcomes into account, it may reduce the quality of Canada's national digital infrastructure as well as the day-to-day competitiveness of the market over time. Accordingly, our proposal for section 27(6) codifies in the *Telecommunications Act* the expectation that the independent regulator will take a long-term view of the best interests of Canada and Canadian consumers.

288. Similarly, the Commission may wish to extend mandated wholesale access only to certain categories of competitors in order to minimize the risk to investment. Our proposed section 27(8) provides for this. For example, the Commission may want to limit mandated access to FTTP (which we believe should not be imposed at all) only to independent ISP

¹⁶⁷ TRP 2015-326.

¹⁶⁸ See Telecom Decision CRTC 2018-97, Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service, paragraph 58 ("From a regulatory perspective, there should be a clear line drawn between incidental access to the national wireless carriers' networks (wholesale roaming) and permanent access to the national wireless carriers' networks (resale, or MVNO access). These two types of network access serve different purposes. Wholesale roaming facilitates wireless carriers' entry into and competition in the market, while wholesale MVNO access facilitates service-based competition. The Commission intentionally made this distinction in the wholesale wireless framework and expressly chose not to mandate the latter service, given its concerns that it could negatively impact investment, particularly from wireless competitors and outside urban core areas.").

competitors and not cable companies like Rogers and Cogeco or large global Internet providers like Google or Amazon. Each of these categories of competitors should be expected to invest in their own facilities or negotiate access to existing facilities on commercial terms, through which they would be contributing to the quality of Canada's infrastructure. In theory, the essential facilities test should ensure that access is not mandated where any competitor could duplicate a service, but in practice, the Commission makes its decision with imperfect information and will often be unwilling to withdraw mandated access from existing resale competitors even where access is no longer essential. In these circumstances, giving the Commission the ability not to extend mandated access to categories of competitors that are not necessary to achieve competition goals would help create a regulatory regime that balances the interests of Canadians.

Figure 22

Proposal – Retail and wholesale regulation

Retail regulation

- 27(5)** The Commission may mandate the provision of a Telecommunications Service to end users or a class of end users where the Commission finds that the Telecommunications Service Provider has violated subsection 27(1) and that the Telecommunications Service Provider possesses significant market power in the relevant market in which the Telecommunications Service is provided.

Wholesale regulation

- 27(6)** The Commission may mandate the provision by a Telecommunications Service Provider of a Telecommunications Service provided by means of a Telecommunications Facility to another Telecommunications Service Provider where the Commission finds that the first Telecommunications Service Provider has violated subsection 27(1) and that:
- (a) the Telecommunications Facility is required as an input by other Telecommunications Service Providers to provide Telecommunications Services in a relevant downstream market;
 - (b) the Telecommunications Service Provider controlling the Telecommunications Facility possesses significant market power in the relevant upstream market such that denying (or withdrawing) access to the Telecommunications Facility would likely result in a substantial lessening or prevention of competition in the relevant downstream market; and
 - (c) it is not practical or feasible for other Telecommunications Service Providers to duplicate the functionality of the Telecommunications Facility.

Ensuring innovation

- 27(7)** Where the Commission finds as a question of fact with respect to a Telecommunications Facility referred to in subsection 27(6) that:
- (a) the owner of the Telecommunications Facility does not have or is unlikely to have significant market power in the relevant downstream market that utilizes the Telecommunications Facility;
 - (b) mandating the provision of a Telecommunications Service to a Telecommunications Service Provider will not be the most effective means to control the market power of the owner of the Telecommunications Facility;
 - (c) there is or is likely to be competition sufficient to protect the interests of users in the absence of mandated access to the Telecommunications Facility;
 - (d) mandating the provision of a Telecommunications Service to a Telecommunications Service Provider by means of the Telecommunications Facility could undermine the level of innovation or investment in advanced or emerging networks or services or impede the adoption of advanced or emerging services by users of Telecommunications Services; or
 - (e) mandating the provision of a Telecommunications Service to a Telecommunications Service Provider by means of the Telecommunications Facility is not likely to have a substantial positive impact on competition in the market which uses the facility;
- the Commission shall not mandate the provision of a Telecommunications Service pursuant to subsection 27(6).

Beneficiaries of an order

- 27(8)** In making any order under subsection 27(6), the Commission may specify the class of users or Telecommunications Service Providers that may benefit from that order.

Exceptions

289. These tests are necessary for new economic regulation, but we recognize that the Commission's existing voice interconnection regime appears to be working well. Equally, the Internet has clearly been a massive success without any regulatory interconnection rules. Under our proposed section 27(9), the tests in sections 27(1), 27(6), and 27(7) would not apply in the context of mandating a service to address a voice interconnection issue because we have defined interconnection as defined by voice traffic in subsection 2(1). It would also not apply to any wholesale service that must be mandated to ensure the implementation of social policy considerations (see the discussion regarding subsection 24(2) below).

Figure 23

Proposal – Section 27(9)

Interconnection	
2(1)	interconnection means the linking of two or more networks for the mutual exchange of voice traffic
27(9)	The Commission may mandate the provision of a Telecommunications Service for the purposes of Interconnection notwithstanding any finding made under subsections 27(7) or 27(8).

4.3.3 Just and reasonable rates

290. Where the Commission determines that intervention is necessary with respect to either a retail or wholesale service, and that regulated rates must be imposed, we recommend that the *Telecommunications Act* provide guidance to the Commission on the criteria they should consider in setting just and reasonable rates. The criteria, proposed in Figure 24 below, are designed to ensure that rates do not undermine the benefits of facilities-based competition for consumers.

Figure 24

Proposal – Considerations for setting just and reasonable rates

Just and reasonable rates

27(10) When the Commission determines that in order to remedy a violation of subsection 27(1) it must specify the rate or the maximum or minimum rate, or both, to be charged for a Telecommunications Service required to be provided under subsection 24(2), 27(5), 27(6) or 27(9), the Commission shall specify a rate or rates that is or are just and reasonable.

27(11) When determining whether a rate is just and reasonable, the Commission shall take the following factors into account:

- (a) The variable and fixed costs to provide the service;
- (b) A contribution to carrier fixed and common costs;
- (c) A reasonable rate of return;
- (d) Incentives for innovation and investment in the construction of networks;
- (e) A risk premium when applicable;
- (f) A real option value to wholesale customers when applicable;
- (g) The costs already incurred by the Telecommunications Service Provider to build the facilities to provide the service;
- (h) The financial impact of regulating the rate on the Telecommunications Service Provider offering the service;
- (i) The time value of money; and
- (j) Any applicable regulatory obligations.

4.3.4 Other changes to promote facilities-based competition

291. In order to implement a presumption towards competition in the *Telecommunications Act*, we recommend the following additional specific changes:

- 1) **Remove sections 25 and 29.** Section 25 of the *Telecommunications Act* currently establishes a presumption for regulation. Indeed, according to this provision, no telecommunications service can be provided by a TSP except in accordance with a tariff approved by the Commission. Section 29 further requires Canadian carriers to obtain Commission approval for any working agreements entered with another carrier for the purposes of interchanging telecommunications, the management or operation of facilities, or the apportionment of rates and revenues. The requirements of sections 25 and 29 are only lifted if the Commission makes a determination to refrain from enforcing these requirements with respect to certain services through a forbearance order issued in accordance with section 34 of the Act. These requirements are onerous and promulgate a presumption of regulation that is no longer appropriate. In order to remove the presumption for regulation and establish a presumption for competition, these sections should be deleted in their entirety.

- 2) **Remove section 31.** Section 31 states that a limitation of liability clause established by a carrier is only effective if approved by the Commission. Such advanced approval is no longer necessary in today's telecommunications environment, which is characterized by sophisticated commercial relationships between service providers and strong competitive forces in the delivery of retail services.
- 3) **Modify section 32.** Section 32 sets out the Commission's general powers. We recommend this section be modified in order to reflect the changes set out above. Specifically, powers related to the tariffing of services are no longer required and should be removed from the *Telecommunications Act*.
- 4) **Modify section 34.** Section 34 sets out the framework for the Commission to follow in making determinations to refrain from exercising its powers in any section of the *Telecommunications Act*. We recommend this section be streamlined to reflect a presumption towards competition, while preserving the Commission's ability to refrain from exercising its powers under sections 24 and 27 should it determine it appropriate to do so.
- 5) **Remove section 37(1)(a).** Section 37(1)(a) of the *Telecommunications Act* deals with the Commission's costing principles for setting just and reasonable rates. These principles would now be set out in section 27(11), and accordingly, section 37(1)(a) is no longer required.
- 6) **Modify section 40.** Section 40 allows the Commission to issue orders relating to the connection of facilities. This section should be modified to provide that such orders should only be issued upon the finding of an undue preference or unjust discrimination under section 27.
- 7) **Modify section 73(2).** Section 73 sets out offences for contraventions of the *Telecommunications Act*. This provision should be modified to delete references to provisions that we propose be removed above.

4.3.5 Reorienting the Commission toward social policy goals

292. In addition to regulating to address matters of unjust discrimination/undue preference under section 27 of the *Telecommunications Act*, as described above, under our proposal the Commission will retain its ability to impose conditions of service on TSPs. The Commission's current powers in this regard are set out in sections 24 and 24.1 of the *Telecommunications Act*. These sections relate to conditions of service for Canadian carriers and non-carriers, respectively.

293. As sections 24 and 24.1 are currently drafted, the Commission is provided with blanket authorizations to impose any condition on a TSP. This language is unnecessarily broad and the Commission itself has previously sought to limit its scope.¹⁶⁹ We recommend clarifying, in the *Telecommunications Act*, the types of regulation the Commission is empowered to impose under this section; these should be the kind of thing that it is necessary and appropriate to address through sector-specific telecommunications regulation rather than laws of general application.

294. In formulating our proposal, we have canvassed how the Commission has used sections 24 and 24.1 to impose conditions on TSPs in the past and propose language that broadly describes these social policy functions. We note that in our proposed section 24(2), the Commission would be permitted to mandate access to a facility or service for any of the purposes set out in section 24(1) without applying the tests set out in section 27 that we described above (e.g., mandated access to our 9-1-1 wholesale service). Our proposed section 24, which relates to all TSPs, is reproduced in Figure 25 below.

¹⁶⁹ Decision 2018-384.

Figure 25**Proposal – A better defined section 24****Conditions of service**

24(1) The offering and provision of any telecommunications service by a Telecommunications Service Provider are subject to any conditions imposed by the Commission relating to:

- (a) access to emergency services;
- (b) access to telecommunications services by persons with disabilities;
- (c) customers switching Telecommunications Service Providers;
- (d) the security of Canadian telecommunications;
- (e) unsolicited telecommunications;
- (f) the registration of Telecommunications Service Providers; and
- (g) preventing Telecommunications Services from being used to infringe copyright over the Internet.

24(2) No condition may be imposed under subsection 24(1) unless the Commission finds that the benefits of imposing the condition are likely to outweigh the costs.

295. Consistent with our recommendation under Priority 5, above, section 24 should empower the Commission to establish a regime to disable access in Canada to illegal websites and in particular, websites that are blatantly, overwhelmingly, or structurally engaged in copyright theft. In Decision 2018-384, the Commission declined to implement proposed measures designed to protect against copyright infringement over the Internet on the basis that it did not have the jurisdiction to grant the requested relief. This provision would allow the Commission to consider that important application, which was supported by a wide group of key stakeholders in this review.

296. Also related to piracy, we propose two changes to section 36. First, to enhance the Commission's jurisdiction to impose measures to protect against copyright theft on Canadians telecommunications networks we recommend that section 36 refer not just to potential Commission approval to control content that is carried but also to the potential for the Commission to direct carriers to take such an action. Second, we have proposed amending section 36 to clarify that Commission approval is not required where a carrier is required by law to take an action such as blocking access to a website. While in our view a carrier responding to a court order could not be considered to have controlled the content it carries (i.e., it would be the court that was controlling it, not the carrier), the Commission has expressed a different

opinion.¹⁷⁰ It is not reasonable for a carrier to be caught in a conflict between a court and the Commission. Such a change should not be controversial.

Figure 26

Proposal – Empower the Commission to make orders to protect against copyright infringement on the Internet

Content of messages

36 Except where the Commission approves or directs otherwise or as otherwise required by law, a Telecommunications Service Provider shall not control the content or influence the meaning or purpose of telecommunications carried by it for the public.

4.3.6 Supporting the deployment of network facilities

297. As part of its review of the *Telecommunications Act*, the Panel has identified that "reducing barriers to access by all Canadians to advanced telecommunications networks" is a central theme of its review. As part of its consultation document, the Panel has correctly identified that a significant barrier for Canadians is lack of coverage, particularly with respect to the state-of-the-art, advanced facilities Canadians require. In order to deliver the advanced services, the Panel notes that facilities-based providers must continuously update and expand their infrastructure to keep pace with technological advancement. The Panel seeks to ensure that the legislative framework set out in the *Telecommunications Act* assists service providers in overcoming associated barriers that prevent Canadians from receiving access to the services advanced infrastructure may support.

Replacing consent with notification

298. In order to meet those objectives, we recommend replacing the current *ex ante* consent requirement with a notification requirement as was recently done in the United Kingdom to great success.

¹⁷⁰ Telecom Commission Letter Addressed to Distribution List and Attorneys General (1 September 2016), affirmed in Telecom Decision CRTC 2016-479.

299. We believed that Canada should replace the consent regime currently in section 43 of the *Telecommunications Act* with a prior notification regime as was recently done in the United Kingdom. As mentioned in the discussion above regarding Priority 2, the United Kingdom government estimated, as a result of a 2012 consultation¹⁷¹, that "up to 80% of the cost of deploying broadband infrastructure is in civil works" and accordingly introduced legislative changes in June 2013, as part of their broadband policy, which removed prior approval requirements for telecommunications network deployment a temporary basis, for five years, on the condition that communications providers create and commit to a cabinet siting and pole siting Code of Practice.

300. Attachment 9 to this submission is a report by Norman Gillan, a chartered planner with significant experience assisting major mobile and fixed-line operators with network planning assessments, planning applications and planning appeals. Mr. Gillan also has experience working with British and Scottish governments to promote the expansion of broadband to rural areas. As noted in his report, originally in 2012 (when the United Kingdom Government first proposed to switch from a consent to a notice regime) most respondents were opposed to doing away with an *ex ante* consent obligation on the basis that doing so: (i) would damage heritage assets, conservative areas or otherwise lead to the proliferation of telecommunications service paraphernalia; (ii) would not adequately compensate for the loss of income to local planning authorities; and (iii) would not impose an obligation on carriers to act on the feedback obtained from public authorities through their consultations.¹⁷²

301. The United Kingdom Government nevertheless proceeded with its proposal for a temporary relief period of *ex ante* consent requirements, capped by a five year "sunset clause", but required carriers and authorities to work together to develop a planning Code of Practice which sets out how providers should deploy their equipment.

¹⁷¹ Consultation: Proposed changes to siting requirements for broadband cabinets and overhead lines to facilitate the deployment of superfast broadband networks, Department of Media, Culture and Sport, UK, (2013) available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/89449/COND_OC_fixed_bb.pdf at 1.3.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/89449/COND_OC_fixed_bb.pdf at 1.3.

¹⁷² Norman Gillan, *The experience of the relaxation of UK (England) legislation to allow more efficient roll-out of communications infrastructure*, Gillan Consulting planning and development, pages 7 to 9.

302. In the five years since the policy was adopted, "superfast" broadband availability in the United Kingdom increased from 75% of United Kingdom premises to 95% as of February 2018.¹⁷³ There was overwhelming support for its renewal including from many parties, such as municipalities, that originally opposed the change. The policy change was such a success that the British Government decided last year that the sunset clause be removed in order to make this streamlined process permanent. In the United Kingdom government's own words:

Section 109 of the Communications Act 2003 contains a sunset clause introduced via the Growth and Infrastructure Act 2013 which ceases to have effect on 6 April 2018. The clause has been used to relax planning requirements for fixed broadband infrastructure. These changes have proved successful in speeding up the process of superfast broadband rollout, providing planning certainty and reducing the costs of deployment. Given the success of the reforms, it is possible that maintaining the planning requirements could encourage further investment and help extend superfast broadband coverage to beyond the 95% of homes and businesses in the UK by the end of 2017 which are due to be served. Government wants to remove the sunset requirement.¹⁷⁴

303. We believe Canada should pursue the same approach. However, as a safeguard, we propose that if a public authority believes that construction activities will unduly interfere in such a manner, or if the service provider fails to notify the authority of its intended plans, the public authority would be able to file an application with the Commission to object to the construction activities. Our proposed language is reproduced below in Figure 27.

¹⁷³ Ibid at 5.1 referring to the United Kingdom Government's own assessment found in Establishing world-class connectivity through the United Kingdom, House of Commons Culture, Media and Sport Committee Second Report of Session 2016-17 at <https://publications.parliament.uk/pa/cm201617/cmselect/cmcumeds/147/147.pdf>.

¹⁷⁴ United Kingdom Government of, "Broadband Planning – Impact Assessment", 18 November 2016, available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/571153/2016-11-21_Broadband_Planning_impact_assessment.pdf.

Figure 27

Proposal – Modify section 43(3) to require notification instead of consent

Undue interference

43(3) Where a Telecommunications Service Provider or distribution undertaking fails to provide appropriate notification of its plans to construct telecommunications facilities on, over, under or along a highway or other public place pursuant to regulations established by the Commission, or otherwise unduly interferes with the public use and enjoyment of the highway or other public place, a municipality or other public authority may request the Commission to intervene and make an order as deemed appropriate.

Access to private buildings

304. We also recommend changes to enhance the Commission's ability to exercise its jurisdiction over the construction of networks. Specifically, we recommend that a new subsection 43(6) be introduced to clearly provide the Commission with the ability to make orders against private landowners and multi-dwelling unit owners to ensure all Canadians are able to access advanced networks. The Commission has maintained that it has the jurisdiction to regulate telecommunications on private property; however, landlords and property owners have indicated that they would challenge an order made against them, should the Commission do so. As section 42 is currently drafted, the Commission has the ability to order the construction of networks against private property owners; however, section 42 can only be engaged in the course of exercising its jurisdiction in another section of the *Telecommunications Act* (which relates to TSPs and public authorities). By introducing subsection 43(6), as set out in Figure 28 below, the Commission would have clear jurisdiction to issue orders to ensure that Canadians residing on private property (such as in multi-dwelling unit buildings) have access to the advanced telecommunications services they require.

Figure 28

Proposal – Subsection 43(6) Access to Buildings

Access to Buildings

43(6) Where a Telecommunications Service Provider cannot, on terms acceptable to it, obtain the consent of a landlord or private property owner to construct a transmission line or facilities in a building or complex meant to serve customers located in that building or complex the Telecommunications Service Provider may apply to the Commission for permission to construct it and the Commission may, having due regard to the public interest, grant such permission subject to any conditions that the Commission determines.

4.3.7 Additional changes to modernize the *Telecommunications Act* and increase transparency

305. We recommend replacing the term "Canadian carrier" with "TSP" throughout the vast majority of the *Telecommunications Act*. Today, the *Telecommunications Act* distinguishes between Canadian carriers and non-carriers (i.e., resellers) in many places; however, we do not believe that these distinctions are generally necessary or intended. The regulatory protections in the *Telecommunications Act* are set out to benefit all Canadians, regardless of whether or not their provider is a Canadian carrier or a reseller. Accordingly, we recommend modifying the *Telecommunications Act* to use the more inclusive term "TSP". The exception to this is with respect to the ownership and control provisions set out in section 16 of the *Telecommunications Act* (and any related references to this section). In that section, we believe that the intended focus of the language is on Canadian carriers specifically, and as a result, we have not modified the language used in this context. We also recommend changing the definition of "TSP" in the *Telecommunications Act* to remove the requirement that the provider offers a "basic" telecommunications service as the requirements that should apply to TSPs should apply to all TSPs regardless of whether or not they are providing a basic telecommunications service.

306. We also recommend that further administrative changes be implemented to modernize the *Telecommunications Act*, to ensure it remains appropriate in the future, and to increase transparency in the Commission's operations.

307. The most noteworthy of these changes includes the addition of a new section 14.1, which would require the publication of an annual report detailing the fees the Commission has charged to TSPs. This change would provide increased transparency with respect to the Commission's operations.

308. We further propose to remove certain powers that the Commission no longer requires and make minor changes to more accurately describe current Commission practices:

- 1) **Remove sections 16.1 through 16.4 and section 67(1)(b.1).** Sections 16.1 through 16.4 set out a framework related to international telecommunications licences. This framework was used to establish Basic International Telecommunications (BITS) licences in 1998 to address concerns of Canadian service providers surrounding the elimination of the monopoly (held by Teleglobe) over long distance calling. Canadian

service providers were concerned that service providers based in foreign countries could establish Canadian subsidiaries that could leverage their overseas operations to engage in anti-competitive practices (such as predatory pricing) in Canada, creating an unfair disadvantage for Canadian providers. BITS licences provided the Commission with a mechanism to oversee the provision of international services to monitor for and protect against such abusive practices.

The concerns that inspired the BITS licence regime have not materialized, and technological change, such as Internet-based calling, have changed the way that international telecommunications are delivered. As a result, the international oversight contemplated by the framework set out in sections 16.1 through 16.4 is no longer required and should be removed from the *Telecommunications Act*.

Section 67(1)(b.1) establishes the Commission's regulation-making power related to international telecommunications licences. This provision should also be removed in conjunction with the elimination of sections 16.1 through 16.4.

- 2) **Remove section 23.** Section 23 provides an expanded definition of "telecommunications service" that extends to services that are not telecommunications services. The definition of "telecommunications service" set out in section 2 of the *Telecommunications Act* is appropriate and should be used throughout the *Telecommunications Act*.
- 3) **Remove section 28.** Section 28 of the *Telecommunications Act* provides a framework concerning the allocation of capacity of telecommunications facilities to support the delivery of broadcasting services. We recommend that this section be removed from the *Telecommunications Act* as it is not required. Capacity concerns are not present with respect to terrestrial networks; satellite capacity is regulated by ISED; and broadcasting policy questions can be addressed directly under the *Broadcasting Act*.
- 4) **Remove section 30.** TSPs are able to recover debts owed in relation to contract or tariff regardless of section 30. This clause is no longer needed and may be removed from the *Telecommunications Act*.

- 5) **Remove section 33.** Section 33, dealing with the treatment of affiliate revenues, is a hold-over from rate of return regulation and is no longer required in the *Telecommunications Act*. Section 35(1) provides the Commission with the ability to consider the activities of affiliates in other relevant determinations.
- 6) **Move section 35(3).** Section 35(3) sets out a definition for the term "affiliate". For simplicity, we recommend that this definition be moved to section 2 of the *Telecommunications Act* with all other definitions.
- 7) **Remove section 59.** Section 59 of the *Telecommunications Act* provides the Commission with the ability to provide non-binding advice to parties. Given the non-binding nature of advice and the relatively short period during which any advice would be relevant (e.g., given changes at the Commission or in the market), we recommend that this provision be removed from the *Telecommunications Act*.
- 8) **Modify section 65.** Section 65 is intended to ensure that courts will take judicial notice of Commission decisions. The current language refers only to decisions published by the Commission in the *Canada Gazette*. As the Commission's standard practice is to publish official versions of its decisions on its website, we have proposed new language to update this provision by reflecting current practices and future-proofing the provision to allow for the Commission to adopt new publication practices as it sees fit.
- 9) **Remove sections 75, 76(1), 132, 133, 89(2), 89(3) and 89(4).** These are transitional provisions that are no longer required in the *Telecommunications Act*. We recommend that they be removed.

4.4 **Recommended changes to the Radiocommunication Act**

309. The *Radiocommunication Act* defines radiocommunication as "any transmission, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature by means of electromagnetic waves of frequencies lower than 3,000 GHz propagated in space without artificial guide."¹⁷⁵ It is clear from this definition that the management of spectrum resources is exceptionally broad in scope, and goes well beyond spectrum use for telecommunications services.

¹⁷⁵ *Radiocommunication Act*, Section 2.

310. The *Radiocommunication Act* has allowed ISED to effectively manage Canada's spectrum resources, including those used for telecommunications services, for over 30 years. Today, the Canadian wireless market is characterized by intense rivalry across a variety of dimensions, the most advanced wireless networks available in the world, extensive deployment to Canadians in both urban and rural areas, high rates of usage, and great value for consumers. These circumstances do not suggest the need for numerous changes to the *Radiocommunication Act* or ISED's role as the administrator of the *Radiocommunication Act*.

311. ISED remains the appropriate institution for managing Canada's spectrum resources. Spectrum used for telecommunication services cannot be managed in a silo and ISED is best placed to ensure that spectrum used for telecommunications services is effectively and efficiently coordinated into the broader radio frequency ecosystem. If not properly managed, telecommunications services can negatively impact spectrum used by the Department of National Defence (e.g., aeronautical radar), public safety and medical devices. ISED is also a decentralized organization with numerous regional offices that allows them to deal with spectrum interference issues that will arise in localized areas. In addition, equipment standards, testing, and certification in order to minimize interference issues is a highly technical function that requires ISED's specialized knowledge.

312. As discussed further below, spectrum management requires international coordination with the International Telecommunications Union (ITU) and other organizations and in this way is akin to international trade negotiations. As a department of the Government of Canada (as opposed to an arm's length quasi-judicial regulatory body such as the Commission), ISED is best placed to represent the country's interests in these fora.

313. Moreover, the Canadian wireless industry is about to make major investments in network equipment and spectrum in order to implement 5G technologies and services. With the anticipated proliferation of wireless equipment and spectrum issues resulting from the evolution to 5G, it is a particularly inappropriate time to make significant changes to the institutions governing radiocommunications. 5G also requires the allocation of new spectrum bands. Managing spectrum auctions is highly technical and ISED has the specialized knowledge and experience to ensure that these auctions are conducted successfully. Canada should not jeopardize its 5G deployment for this sort of governance change.

314. While major changes to the governance of the *Radiocommunication Act* are not appropriate at this time there are a few deficiencies with the *Radiocommunication Act* itself that should be addressed in the current review. First, given the rise in importance of wireless services, there is a need for the *Radiocommunication Act* to have its own policy objectives rather than simply an optional reference to the objectives in the *Telecommunications Act*. Second, the *Radiocommunication Act*'s treatment of spectrum licence fees requires updating. The remainder of this section will discuss these two proposals.

4.4.1 Adding Canadian Radiocommunications Policy Objectives

315. In the past 30 years, Canada's wireless market has grown to where it now generates over \$25 billion a year in revenues and accounts for more than half of retail telecommunications revenue.¹⁷⁶ It is also the case that the percentage of Canadian households that only subscribe to mobile services (32.5%) significantly exceeds the percentage of households that only subscribe to landline services (11.4%).¹⁷⁷ The growth of the Canadian wireless industry was supported by the broad consensus among Canadian regulators and the Government that wireless regulatory policy should support facilities-based competition and regulatory forbearance.

316. Given the rise in the importance of wireless telecommunications services, it is no longer appropriate that the *Radiocommunication Act* only have an optional reference to the policy objectives of the *Telecommunications Act*. The review of Canada's communications legislative framework provides an opportunity to codify into the *Radiocommunication Act* certain principles in ISED's *Spectrum Policy Framework for Canada*. The implementation of policy objectives will also provide guidance to ISED as the management of spectrum resources continues to grow in importance and complexity. As noted in the *Spectrum Policy Framework for Canada*, "managing the radio frequency spectrum is becoming more complex, driven by continuous improvement in technology that foster the marketing of new communications products and services for industrial and consumer applications that are increasingly spectrum dependent."¹⁷⁸

¹⁷⁶ CMR 2018, Infographic 4.1.

¹⁷⁷ CMR 2018 - *Communications Services in Canadian Households: Subscriptions and Expenditures 2012-2016*, Figure 1.1 and accompanying text.

¹⁷⁸ Industry Canada, DGTP-001-07 – *Spectrum Policy Framework for Canada* (June 2007), page 2. Available online at <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08776.html>.

317. Section 5(1) of the *Radiocommunication Act* provides the Minister with very broad powers with respect to the management of radiocommunications in Canada. For example, subsection 5(1) states that "the Minister may take into account all matters that the Minister considers relevant for ensuring the orderly establishment or modification of radio stations and the orderly development and efficient operation of radiocommunication in Canada." Furthermore, Section 5(1)(n) states that the Minister may "do any other thing necessary for the effective administration of this Act."¹⁷⁹ While the Minister is subject to regulations made by the Governor-in-Council¹⁸⁰ and ISED has implemented various frameworks to guide their decisions, we believe that several guiding principles should be incorporated into the *Radiocommunication Act* in the form of policy objectives.

318. The focus of our proposed policy objectives is to provide the Minister and the Governor-in-Council with a clear policy framework that focuses on the promotion of efficiency, innovation and investment in facilities-based competition, while realizing that radio frequency spectrum has multiple uses that also support social benefits such as Canadian sovereignty, security and public safety.

319. The proposed policy objectives are similar to those in Section 7 the *Telecommunications Act*, the *Policy Direction*¹⁸¹ and ISED's *Spectrum Policy Framework for Canada*¹⁸². In Figure 29, we provide the proposed language for a new section 5(1.1). The proposed objectives capture the importance of innovation, research and development, and provide clear direction that regulation should support facilities-based competition.

¹⁷⁹ *Radiocommunication Act*.

¹⁸⁰ *Radiocommunication Act*, Sections 5 and 6.

¹⁸¹ P.C. 2006-1534, *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, SOR/2006-355, C. Gaz. 2006.II.2344.

¹⁸² *Spectrum Policy Framework for Canada*.

Figure 29

Recommended language for a new subsection 5(1.1)

Canadian radiocommunication policy objectives

5(1.1) It is hereby affirmed that radiocommunication performs an essential role in the maintenance of Canada's identity and sovereignty and that the Canadian radiocommunication policy has as its objectives

- (a) to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource;
- (b) to make spectrum resources available to support Canadian sovereignty, security and public safety needs;
- (c) to actively advance and defend Canada's spectrum resource interests internationally;
- (d) to promote efficiency, innovation and investment in facilities-based competition;
- (e) to rely on market forces to the maximum extent feasible, and when relying on regulation it should be minimally intrusive, efficient and effective;
- (f) to support the efficient use of spectrum resources by:
 - (i) permitting the flexible use of spectrum to the extent possible; and
 - (ii) facilitating secondary markets for spectrum authorizations
- (g) to promote spectrum management practices, including licensing methods, that minimize administrative burden and are responsive to technology and market place demands

Objective (a): Economic and social benefits

320. Wireless communications has fundamentally changed how Canadians interact with family and friends; consume entertainment content; work; and interact with businesses and government agencies. Wireless services are now an indispensable part of Canadian lives. As described in the *Spectrum Policy Framework for Canada* spectrum is a resource which benefits all aspects of society:

The radio frequency spectrum is a unique resource from which all aspects of society benefit. It provides access for Canadians to a range of private, commercial, consumer, defence, national security, scientific and public safety applications. The radio frequency spectrum is divided into different bands which are used by a variety of communications services including - broadcasting, cellular, satellite, public safety and two-way radio. It is the only resource that can support practical wireless communications in every day situations.¹⁸³

¹⁸³ *Spectrum Policy Framework for Canada*, page 1.

321. With respect to maximizing the economic benefits Canadians receive from the use of spectrum resources, the Canadian wireless industry has, and will continue to have a significant impact on the Canadian economy. Canada's wireless industry contributes over \$26 billion to the Canadian economy and generates approximately 138,000 full-time equivalent jobs.¹⁸⁴ Thus, an important objective for the management of radiocommunication is that spectrum should be deployed to maximize the economic and social benefits of Canadians.

Objective (b): Canadian sovereignty, security and safety

322. As more and more information and data travel over Canada's wireless networks, as noted by the Canadian Wireless Telecommunications Association (CWTA), Canadians "count on ubiquitous advanced network connectivity to help keep them safe and secure" and "they need to trust that the personal and private information on their mobile devices is also safe and secure."¹⁸⁵ Radiocommunications need to be used for the advancement of Canadian sovereignty as well as for ensuring that Canadians and the information they share remain safe and secure. This is also an important objective for us as described in the *BCE Inc. 2017 Corporate Responsibility Report*:

As devices connected to the Internet become smarter, and as data-transmission volumes increase, Bell works to continuously improve the level of information security through the protection and effective organization of systems, applications, and information repositories. This is vital to the secure operation of our networks and business, and critically important to our customers, who, along with our team members, expect that we protect their identities and information to the greatest extent possible.¹⁸⁶

Objective (c): International spectrum interests

323. One of the primary roles of spectrum management is to ensure that the allocation of spectrum minimizes the extent of interference between users within and across country borders. This requires having an internationally consistent set of standards regarding frequency use. However, there may be situations where standards differ across countries, requiring other countries to know which standards Canada has adopted in order to minimize the extent of frequency interference. In addition, by having a consistent set of standards across countries, Canadian spectrum users are able to benefit from the significant economies of scale that arise

¹⁸⁴ CWTA, "Facts & Figures", available online at <https://www.cwta.ca/facts-figures/>.

¹⁸⁵ See <https://www.cwta.ca/>.

¹⁸⁶ *BCE Inc. 2017 Corporate Responsibility Report*, page 17.

when equipment is produced for use throughout the world, rather than having equipment designed specifically for Canada's small market.

324. To support Canada's participation in the global radiocommunications ecosystem and ensure that Canada's interests are reflected in the setting of international standards, a key policy objective should be to actively advance and defend Canada's spectrum resource interests internationally. This is not a burdensome objective since Canada already participates in global forums such as the International Telecommunications Union (ITU)¹⁸⁷ and specifically participates with respect to telecommunications standards, as noted by ISED:

The Canadian National Organization for the International Telecommunication Union – Telecommunication Standardization Sector (CNO/ITU-T) was established in 1973. The objective of the CNO/ITU-T is to promote and coordinate Canadian participation in the activities of the ITU-T. It comprises members from the public and private sectors of the Canadian telecommunications community. The CNO/ITU-T fulfills the purposes of the International Telecommunication Union (ITU) relating to telecommunications standardization. The National Study Groups are responsible for studying technical, operating and tariff questions and adopting recommendations on them with a view to standardizing telecommunications on a worldwide basis.¹⁸⁸

Objective (d): Promote efficiency, innovation and investment through facilities-based competition

325. Supporting facilities-based competition recognizes that the type of competition that most benefits consumers is multi-dimensional and must include investment and innovation directed at improving and expanding networks and lowering network costs over time. This form of competition provides better value products and services to more people over the long term. However, situations may arise where proposed policies attempt to emphasize short-term objectives, even if it means less investment and innovation over the longer-term. The inclusion of objective (d) – which states that Canada's radiocommunications policy objectives should promote efficiency, innovation and investment in facilities-based competition – is to ensure that policy-makers promote reliance on market forces and balance the benefits of near-term market impacts against the benefits of longer-term facilities-based competition.

¹⁸⁷ International Telecommunication Union (ITU), webpage available online at <https://www.itu.int/en/Pages/default.aspx>.

¹⁸⁸ Government of Canada, "Canadian National Organization for the International Telecommunication Union – Telecommunication Standardization Sector", webpage available online at https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf02075.html.

326. Canadian consumers, businesses, and public institutions must continue to benefit from an ever-changing set of capabilities, features and applications. For example, the forecasted use cases for 5G services include enhanced / ultra-fast mobile broadband, massive machine-type communications, and ultra-reliable / low-latency communications. These applications are all predicted to significantly drive higher network usage, leverage Internet of Things (IoT) growth, and facilitate development of new and innovative uses in healthcare, transportation and smart cities. The objectives of the *Radiocommunication Act* should support the development of innovative new technologies such as those related to 5G services.

327. Moreover, the focus on facilities-based competition has enabled prolonged and significant growth and innovation in wireless telecommunications. Today, there are four facilities-based competitors and 10 or more wireless brands competing aggressively in every region of the country, offering a full range of price points, network speed and coverage options, pre-paid and post-paid alternatives, and usage profiles to meet every consumer's need. There also continues to be the increasingly ubiquitous presence of Wi-Fi in private and public spaces, which, when combined with mainstream use of OTT calling applications (such as FaceTime, Whatsapp, Skype, Facebook Messenger, etc.), gives consumers alternatives when selecting a wireless plan and additional competitive dynamism to the market. The public policy focus on facilities-based competition in the Canadian wireless industry has resulted in having access to world-class wireless networks and services and must continue.

Objective (e): Rely on market forces

328. Relying on market forces to the maximum extent feasible does not imply that regulation is never required. As indicated above, there will need to be regulations with respect to standards, safety requirements and the types of uses designated to various spectrum frequencies. Rather, as indicated in objective (e), where regulation is required, it should be minimally intrusive, efficient and effective. Regulation in the face of competitive forces distorts the competitive environment, hinders competitive responses and reduces the benefits of competition, investment and innovation.

Objective (f): Promote efficient use of spectrum

329. Implementing objective (f), which states that spectrum should be allocated on a flexible use basis, will support innovation and technological advancement as research and development activities uncover new uses for spectrum resources. For example, 600 MHz spectrum was originally allocated for use by OTA broadcasters but can now be used for the delivery of mobile wireless services. As a result, spectrum is being allocated to a higher value use (i.e., from supporting OTA broadcasting to being used for commercial wireless services) in response to market developments.

330. Flexible use spectrum licences will allow spectrum users to implement technologies that best support their applications and services. For example, with respect to wireless telecommunications, ISED's recently proposed implementation of flexible use licences for 3500 MHz spectrum will allow wireless providers to implement either fixed or mobile wireless networks – or a combination of both. Thus, wireless providers will have the opportunity to develop and implement technologies that are best designed for the services they want to provide.

331. Flexible use licences, in conjunction with facilitating secondary markets for spectrum authorizations, will facilitate the most efficient use of spectrum resources. The benefits of facilitating spectrum transfers through secondary markets is described in a study commissioned by the Office of the Minister of Industry in 2007. The study, authored by McLean Foster & Co. in collaboration with noted spectrum management specialists Prof. Martin Cave, Robert W. Jones and Dr. William Lehr (the Cave Study), concludes:

The goal of tradable licences has several beneficial implications:

1. First, if license ownership may be transferred, then it is continuously possible for market forces to provide incentives for spectrum to be allocated to its highest value use, and for whatever use it is currently being employed in to reflect its true opportunity cost. This induces high-powered incentives to use spectrum efficiently.
2. Second, the more spectrum that is tradable in this way, the more liquid will be secondary markets and the lower the average opportunity cost or scarcity rents associated with spectrum access rights. Encouraging spectrum prices to be as low as possible, consistent with aggregate demand and supply factors, will enable low-cost access for new

applications and services which is an important overall goal of spectrum reform.¹⁸⁹

332. Allowing spectrum licence holders to transfer flexible licences will encourage the evolution of spectrum to its highest value use – whatever that might be. If the 600 MHz spectrum licences discussed above were originally designated for flexible use, then as commercial mobile wireless technologies were developed that could use this spectrum, wireless providers would have had the opportunity to negotiate with broadcasters for the transfer and use of that spectrum. Instead, ISED required years to move broadcasters to different frequencies (at the broadcasters' expense) to clear out the spectrum band for reallocation for commercial mobile use.¹⁹⁰

Objective (g): Minimize the administrative burden

333. The final proposed objective is to promote spectrum management practices, including licensing methods, that minimize administrative burden and respond to technology and market place demands. The efficient allocation of any resource is supported when costs are reduced – including administrative costs. This objective is consistent with the *Red Tape Reduction Act*¹⁹¹ whose purpose "[i]s to control the administrative burden that regulations impose on businesses"¹⁹², where administrative burden "means anything that is necessary to demonstrate compliance with a regulation, including the collecting, processing, reporting and retaining of information and the completing of forms".¹⁹³

334. Improving regulatory efficiency is also a key component of the Government's Fall Economic Statement 2018, where they strive to make regulatory efficiency and economic growth permanent parts of regulators' mandates:

¹⁸⁹ Cave, M., R.W. Jones and W. Lehr, (2007) *Study of Market-based Exclusive Spectrum Rights*, page 86. Available online at [http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/market_based_rights-droits_axes_sur_le_marche-eng.pdf/\\$FILE/market_based_rights-droits_axes_sur_le_marche-eng.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/market_based_rights-droits_axes_sur_le_marche-eng.pdf/$FILE/market_based_rights-droits_axes_sur_le_marche-eng.pdf).

¹⁹⁰ Interference issues may arise when the spectrum band is designated for multiple uses. However, market forces can address this issue as long as there exists a clear understanding of who has priority in terms of interference mitigation. For example, it could be the case that wireless services can be used as long as it does not interfere with broadcast services, or the opposite such that broadcast services can be used as long as it does not interfere with wireless services. It is important to note that spectrum users have a long history of being able to manage spectrum interference across uses in the same spectrum band.

¹⁹¹ *Red Tape Reduction Act* S.C. 2015, c. 12, available online at <https://laws-lois.justice.gc.ca/eng/acts/r-4.5/page-1.html>.

¹⁹² *Red Tape Reduction Act*, section 4.

¹⁹³ *Red Tape Reduction Act*, section 2.

The Government intends to review legislation to assess whether opportunities for legislative changes exist to further solidify that regulatory efficiency and economic growth is an integral part of regulators' mandates. This would encourage implicated departments and agencies to simplify regulatory proposals, and better address other considerations when designing and implementing regulations, while continuing to prioritize health and safety and environmental responsibilities.¹⁹⁴

335. For example, some spectrum licences require licensees to submit an annual report which provides information on spectrum deployment, licensee spending and other information. The effort required to prepare the annual reports is significant and it is uncertain that the value of these reports is commensurate with the effort that licensees expend in their preparation. We estimate that our annual ISSED report, requires approximately 200 hours to prepare. While we appreciate that ISSED must monitor spectrum licences to fulfill its mandate and that licensee-specific information may be a necessary element of the monitoring exercise, it is important that regulatory processes be continually reviewed to minimize the costs, and to limit the extent of administrative burden.

Reference to the objectives of the Telecommunications Act

336. While the *Radiocommunication Act* covers many areas of spectrum use, clearly one of the most important areas is the provision of telecommunication services. Therefore, while we are proposing new radiocommunication policy objectives, we also propose to retain the current subsection 5(1.1) which states "in exercising the powers conferred by subsection (1), the Minister may have regard to the objectives of the Canadian telecommunications policy set out in section 7 of the *Telecommunications Act*". The section should be numbered 5(1.2) and the heading should be updated to "Canadian radiocommunication and telecommunications policies".¹⁹⁵

Objectives should apply to the Governor-in-Council

337. For consistency, our proposed Canadian radiocommunication policy objectives and the Canadian telecommunications policy objectives should apply to the Governor-in-Council in the same manner as they apply to the Minister. As a result, we propose introducing a new

¹⁹⁴ Department of Finance, *Fall Economic Statement 2018*, page 73.

¹⁹⁵ The remaining subsections related to bidding systems for radio authorizations, payments pursuant to bids, procedures for bidding system and obligation will also need to be renumbered to (1.3), (1.4), (1.5) and (1.6) respectively.

subsection 6(1.1) under the heading of "Canadian radiocommunication and telecommunications policy" in Figure 30 below.

Figure 30

Recommended language for a new subsection 6(1.1)

Canadian radiocommunication and telecommunications policy

6(1.1) In exercising the powers conferred by section (6), the Governor in Council must have regard to the objectives of the Canadian radiocommunication policy set out in subsection 5(1.1) and may have regard to the telecommunications policy set out in section 7 of the

4.4.2 Proposed Changes to Prescribing Fees

338. Strictly speaking, the *Radiocommunication Act* does not need to apply spectrum licence fees to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource. As noted above, the Canadian wireless industry has a significant impact on the Canadian economy. This is the outcome of the significant investments made by Canadian wireless providers which have invested over \$49 billion in capital expenditures (including investments through spectrum auctions), since 2006. This amount is over and above the taxes paid to all levels of government and payroll charges that are required to operate wireless businesses and provide productivity and security enhancing wireless services to Canada and its citizens.

339. The proceeds from spectrum auctions can fully compensate Canadian taxpayers for the use of the public resource without also implementing licence fees at a later date as is the current practice. As a result, spectrum license fees should never be implemented for spectrum that was allocated using an auction. In fact, spectrum licence fees serve to undermine the maximization of economic and social benefits by acting as a drag on investments in wireless networks, applications and services. For example, Canadian wireless service providers pay over \$185 million each year in spectrum licence fees. Since 1987, the total amount paid is close to \$3.3 billion.¹⁹⁶ This is money that licensees could have used for activities that would result in even greater economic and social benefits for Canadians.

¹⁹⁶ CWTA, "Facts & Figures", available online at <https://www.cwta.ca/facts-figures/>.

340. The determination of spectrum licence fees in Canada is not based on the recovery of costs, as is the case in the United States. In the United States, the Federal Communications Commission (FCC) is mandated by Congress to only recover the cost of their activities:

Regulatory fees, mandated by Congress, are collected "to recover the costs of . . . enforcement activities, policy and rulemaking activities, user information services, and international activities." Regulatory fees are to "be derived by determining the full-time equivalent number of employees performing" these activities, "adjusted to take into account factors that are reasonably related to the benefits provided to the payer of the fee by the Commission's activities" Regulatory fees recover direct costs, such as salary and expenses; indirect costs, such as overhead functions; and support costs, such as rent, utilities, and equipment. [Footnotes omitted.]¹⁹⁷

341. To put the magnitude of Canada's annual spectrum licence fees for commercial mobile spectrum into context, if Canada's commercial mobile annual spectrum licence fees were based on the FCC's rate of \$0.20 per active wireless number¹⁹⁸, Canadian wireless providers would pay only \$6.5 million per year rather than the \$185 million per year they are currently paying.¹⁹⁹

342. Therefore, we propose that the *Radiocommunication Act* be amended such that when prescribing fees they should be based on only recovering the costs of managing spectrum. This requires that subsection 6(1)(l) be amended to state (the amendment is indicated in bold) in Figure 31 below.

Figure 31

Proposal – Modify section 6(1)(l)

6(1)

(l) Prescribing fees

- (i) for radio authorizations, applications therefor and examinations or testing in relation thereto, and
- (ii) for services provided by the Department of Communications relating to spectrum management,

and respecting interest payable on unpaid fees so prescribed, subject to the requirement that such fees only recover the costs of managing spectrum resources;

¹⁹⁷ Federal Communications Commission, FCC 18-126, *Assessment and Collection of Regulatory Fees for Fiscal Year 2018*, paragraph 3.

¹⁹⁸ *Ibid.*, Appendix B.

¹⁹⁹ The CWTA estimates that as of Q3 2018, there were 32,580,374 wireless subscribers in Canada. Thus, \$0.20 x 32,580,374 = \$6,516,075.

343. This proposed change will ensure that spectrum licence fees do not distort the efficient use of spectrum. Canada's future prosperity depends on the diffusion of innovation and on having access to 21st century network infrastructure; both of which require significant investments. World-class wireless networks and services will form part of the critical foundation that will support a thriving digital, information and knowledge economy.

5.0 BROADCASTING POLICY ANALYSIS

344. It is hardly news that programming distribution and consumption patterns are changing rapidly, and that this is a result of the open Internet, which reaches billions of people across the globe, increasingly replacing closed, Canadian-specific platforms for the distribution of content. As the Commission has noted, the cycle of disruption initiated by the emergence of the Internet continues unabated.²⁰⁰ The newspaper and music industries have already been radically transformed. Now, the Internet is reshaping television and radio broadcasting and distribution. This creates challenges for both Canadian content and distribution companies and for broadcasting policy makers.

345. For content creators and distributors like us, the challenge is unprecedented competition from companies with global scale and budgets that reflect it. To meet this challenge we must continue to innovate, invest, and adapt – and we are doing just that.

346. For policymakers, the challenge is to update the tools used to achieve our well-established cultural policy goals. In particular, in the Canadian context the fundamental purpose of broadcasting policy is and has always been to ensure that Canadians see their stories and hear their voices reflected in a Canadian broadcasting system. To achieve this purpose, various tools have been used to secure a place for Canadians and Canadian content alongside the best content from around the world.

347. The transition from traditional closed systems to the open system based on the Internet does not change this purpose or the need to make space for Canadians within a single broadcasting system. Nevertheless, while the goal remains the same, a change is indeed required when it comes to selecting which tools from the regulatory toolkit to deploy, and how to deploy them, in order to achieve it.

²⁰⁰ *Harnessing Change: The Future of Programming Distribution in Canada*, Market Insight 8.

5.1 The Internet is replacing traditional distribution

348. The Internet is replacing traditional modes of distribution as a result of the growing penetration and quality of broadband connections, the quality of Internet video offerings and the ease with which they can be used, and ongoing changes in consumer habits and expectations. Between 2012 and 2016, consumer demand for broadband data more than quadrupled²⁰¹, driven by demand for real-time video and audio entertainment, which is estimated to account for two-thirds of fixed network Internet traffic and one-third of mobile Internet traffic in North America.²⁰²

349. OTT television services have seen their penetration in Canada grow from 10% in 2011 to almost 60% last year.²⁰³ Netflix alone has an estimated 6.7 million Canadian customers²⁰⁴ and viewing to Netflix tops the largest Canadian stations in key demographics in the English language market.²⁰⁵

350. The trend away from traditional content distribution models is particularly pronounced amongst younger Canadians; Canadians under 35 watch online television at more than three times the rate of Canadians older than 35.²⁰⁶

²⁰¹ *Harnessing Change: The Future of Programming Distribution in Canada*, Internet Trends, Figure 11.

²⁰² *Harnessing Change: The Future of Programming Distribution in Canada*, Market Insight 3 and Internet Trends, Figure 9.

²⁰³ Media Technology Monitor, "Pirating TV and Video Content – Analysis of the Canadian Market", (15 November 2018) page 17.

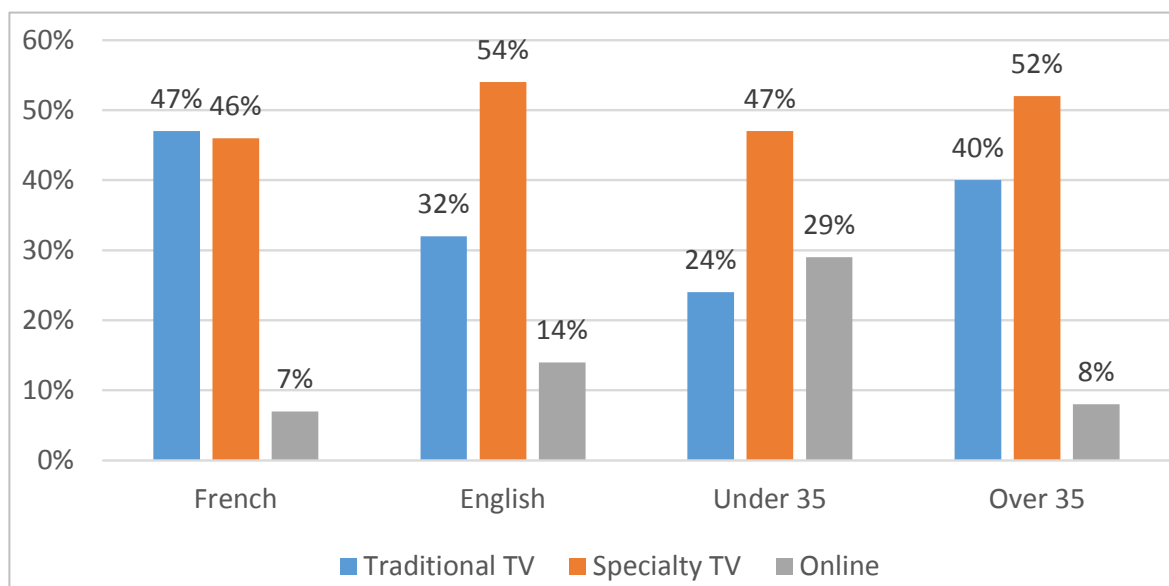
²⁰⁴ Emily Jackson, "Netflix doing booming business in Canada, industry research reports suggest" (17 April 2018), available online at <https://business.financialpost.com/telecom/media/netflix-doing-booming-business-in-canada-industry-research-reports-suggest>.

²⁰⁵ *Harnessing Change: The Future of Programming Distribution in Canada*, Audience Trends, Figure 16.

²⁰⁶ Armstrong Report at Figure 26; *Harnessing Change: The Future of Programming Distribution in Canada*, Audience Trends, Figure 14.

Figure 32

Share of Total Viewing by Types, by Language and Age Group, Traditional, Specialty, Online, 2017



351. Younger Canadians are also embracing personalized television viewing, eschewing scheduled programming in favour of on-demand programs. The preferences of younger Canadians are important as they portend future content consumption trends. As of today, these trends suggest traditional television will increasingly be challenged by Internet delivered programming content.

352. The sports market – long considered an important advantage for traditional distribution platforms against online competitors – is not immune from this trend. In just the last two years:

- London-based streaming service DAZN has entered the Canadian market and acquired streaming rights to soccer's Premier League beginning with the 2019-2020 season and the lucrative NFL Sunday Ticket package beginning with the 2017-2018 season.²⁰⁷
- Rogers launched Sportsnet Now to make its flagship Sportsnet services, including NHL hockey and Blue Jays baseball, available direct to consumer over the Internet;
- We launched TSN Direct to make our flagship TSN services, including NHL and international hockey, CFL and NFL football, and major championships from across the

²⁰⁷ Peter Evans, "Sports streaming app DAZN launches in Canada with all NFL games for \$20 a month" (21 July 2017), available online at <http://www.cbc.ca/news/business/dazn-streaming-nfl-1.4214428>.

- sporting world, available direct to consumer over the Internet – beginning with the World Cup of soccer last year; and
- Disney announced in August 2017 that it was building two streaming services, including one dedicated to its ESPN sports programming.²⁰⁸ While Disney has not announced plans to expand to Canada yet, the announcement is a clear indicator of a market on the brink of even more transformation and choice for consumers.

353. The data reflect this OTT substitution trend, with the number of Canadians disconnecting from the traditional linear system (which is the only system currently regulated in Canada) increasing. Overall BDU penetration in Canada declined by 8% between 2012 and 2016²⁰⁹ and today approximately 25% of Canadians are not subscribed to the system that the Commission has chosen to regulate under the *Broadcasting Act*.²¹⁰ Moreover, when asked in 2016, 20% of Canadians said that they were likely or somewhat likely to discontinue their traditional television service over the next 12 months.²¹¹ These trends pre-date the launch of Amazon Channels and other dedicated Internet aggregators that will further accelerate this change.

354. Even among users within the traditional broadcasting system, the Commission has chosen to regulate, OTT substitution is having an effect, with penetration of the vast majority of core discretionary services tending to decline materially in recent years.

355. In its *Harnessing Change* report the Commission recognized the impact of foreign OTT providers on Canadian BDUs: "competition from online video services has resulted in erosion of BDU subscribers and revenues...Declines are happening at a slower pace in the French-language market than in the English-language market, but are equally evident in both."²¹²

²⁰⁸ Brooks Barnes, "With Disney's Move to Streaming, a New Era Begins" (9 August 2017) available online at https://www.nytimes.com/2017/08/09/business/media/with-disneys-move-to-streaming-a-new-era-begins.html?nl=todaysheadlines&emc=edit_th_20170810.

²⁰⁹ CMR 2017, Table 4.3.6, page 202.

²¹⁰ CBC News, "Cable TV cord-cutting in Canada expected to accelerate" (19 April 2017) available online at <http://www.cbc.ca/news/business/cord-cutting-convergence-group-1.4075486>.

²¹¹ CMR 2017, Table 4.3.9, page 204.

²¹² *Harnessing Change: The Future of Programming Distribution in Canada*. See Future Viability of Business Models (Cable, Satellite and Fibre TV).

5.2 The distinct Canadian rights market is eroding

356. As online competitors with global scale position themselves at the core of the television viewing experience, inevitably Canadian broadcasters are competing in the same content acquisition markets as unregulated players. As a consequence, we are witnessing an erosion of the Canadian rights market in favour of a global one.

357. Historically, Canadian broadcasters could purchase American programs at a much lower cost than would be incurred to produce a program of similar quality (given that the cost of an American program is amortized first over the much larger American market and subsequently over a large number of international markets). The acquisition of American program content has therefore long been an important economic pillar for Canadian broadcasters, supporting them in meeting their regulatory obligations. This source of profits is now under considerable competitive pressure as program producers increasingly license rights to programs on a global basis or retain program rights and distribute their programs directly to consumers.

358. Indeed, OTT players now can and do acquire exclusive global rights (including linear rights despite not having a linear platform) to popular programming, meaning that Canadian broadcasters may not even have a chance to bid on those programs. Increasingly, American studios are cutting such lucrative global deals (e.g., with Netflix) in order to give their productions a funding boost. As more and more of this occurs, Canadian broadcast rights will become obsolete for non-Canadian programs.

359. The mere existence of OTT players is driving up prices for all types of programming rights in the Canadian market, forcing broadcasters to pay steep prices to outbid competitors whose budgets benefit from global scale and who are unfettered by any regulatory commitments. Today, Bell Media must pay significantly more per unit for American program rights – if the American producers even choose to make these rights available.

5.3 Advertising is no longer a reliable revenue stream

360. Nowhere has Internet competition been more keenly felt than in traditional media advertising markets, where a shift towards digital advertising is well underway. As noted by the Commission, advertising revenue opportunities have shifted from media companies producing

content (such as those employing reporters to produce local news) to gatekeeping applications that control platforms and data.²¹³

361. Today the largest share of advertising investment goes to search and social media platforms. In this regard, from 2010 to 2016, Internet advertising revenue in Canada grew from \$2.3 billion to \$5.48 billion, a dramatic 240% increase.²¹⁴ Meanwhile, traditional media advertisers have experienced declines or, at best, stagnant advertising sales. Declining advertising sales revenues have been precipitous in certain segments including newspapers (-43%)²¹⁵ and OTA television (-20%)²¹⁶. For example, advertising revenue generated by private Canadian conventional television broadcasting stations has decreased by \$488 million²¹⁷ from 2011 to 2017.

362. Consistent with this trend, video subscription revenues continue to grow in importance and now account for two-thirds of revenues in the video marketplace.²¹⁸

363. The shift in advertising investment to the Internet combined with the shift in video business models to subscription revenue has been particularly harmful to OTA television because due to the existing statutory framework it relies almost entirely on advertising as its funding source. For example, in 2016, advertising accounted for 92% of private conventional broadcasters' revenues while only 31% of discretionary and on demand services' revenues came from advertising (the rest coming from the second portion of their dual income stream - subscription revenues).²¹⁹

²¹³ *Harnessing Change: The Future of Programming Distribution in Canada*, Internet Trends, The Financial Picture, Market Insight 8.

²¹⁴ *Harnessing Change: The Future of Programming Distribution in Canada*, The Financial Picture, Figure 26.

²¹⁵ *Ibid.*

²¹⁶ CMR 2017, Table 4.2.1, page 36 and CRTC Communications Monitoring Report 2015, Table 4.2.1, page 79.

²¹⁷ See CRTC Communications Monitoring Report 2011 and 2017, Figure 4.2.1.

²¹⁸ *Harnessing Change: The Future of Programming Distribution in Canada*, The Financial Picture, Figure 29.

²¹⁹ CMR 2017, page 92.

5.4 **Consumers in Canada are well-served**

364. Canadian consumers are extremely well-served by both linear and OTT competitors. From the perspective of competitiveness, cost, and access to the best content there is simply no issue to be addressed and no justification for regulation. Rather, the only purpose of broadcasting regulation in Canada in 2019 should be, as it has traditionally been, to meet cultural policy objectives.

365. With respect to linear television, the average American user pays 50% more than the average Canadian for their television subscription.²²⁰ This difference pre-dates recent Commission regulation (such as flexible packaging rules) and is the result of a number of factors including intense BDU competition, the widespread availability in Canada of advanced IPTV services, and the existence in Canada of channels that aggregate the best content from multiple foreign services into a single service. This allows consumers to access all of that content with a single subscription rather than fragmenting it across channels (e.g., Crave gives consumers access to HBO, Showtime, and other content in a single subscription).

366. At the same time, companies in the linear system face unprecedented competition – for audiences, subscribers, advertising dollars, and programming. Over the last decade, new online competitors have entered the Canadian market: Netflix in September 2010, Amazon Prime Video in December 2016, and CBC All Access in April 2018, to take just a few prominent examples. These services offer content in new ways and amortize spending across global markets, ultimately lowering costs to consumers. In some cases, the lower costs are just temporary; for example, Netflix launched in Canada at \$7.99 but has since raised its price for a family to \$16.99 and will have to raise it still further to recoup its growing content investments.

367. By way of illustration, Netflix's global programming budget in 2017 was U.S. \$6.3 billion²²¹ – compared to CAD \$4 billion for all of the programming acquisition and production of every kind undertaken by all privately owned players in the Canadian linear system.²²²

²²⁰ Scotiabank, *Converging Networks* (14 May 2018) at Exhibit 7.

²²¹ Rani Molla "Netflix spends more on content than anyone else on the internet — and many TV networks, too" (26 February 2018) available at <https://www.recode.net/2018/2/26/17053936/how-much-netflix-billion-original-content-programs-tv-movies-hulu-disney-chart>.

²²² CRTC, 2017 Aggregate Annual Returns for Private Conventional Television and Discretionary and On-Demand Services.

368. In addition to OTT services, the widespread availability of and demand for user-generated content has unleashed a new, dynamic competitive force into the marketplace and changed audience habits along the way. At the same time, Google and Facebook act as content aggregators, often using news content produced by Canadian broadcasters to do so.

369. In the face of this challenging competitive dynamic, we recognize that traditional domestic players must adapt. To do so we are making fundamental changes to our service offerings to respond to the needs of our viewers, listeners and subscribers. For example, in terms of platforms Bell Media has launched:

- Crave, Canada's only domestic English-language subscription video-on-demand service. Crave provides exclusive, award-winning Canadian and international programming content both within the linear system on set-top boxes (STBs) and direct to consumers over the Internet;
- A number of TV Everywhere (TVE) applications, with download-to-go and other advanced functionality in many cases;
- TSN Direct and RDS Direct, making those sports channels available direct-to-consumers over the Internet, without the need to be an authenticated BDU subscriber;
- A number of radio apps – primarily iHeart Radio Canada – that provide digital access to our radio stations as well as curated digital-only streams; and
- Snackable TV, which offers comedy, lifestyle, entertainment, news and sports videos ranging from 44 seconds to 10 minutes duration to compete in the mobile-focused bite-sized entertainment VOD space where YouTube, Twitter, and Instagram are prominent.

370. In terms of content, we are creating new and better flagship made-in-Canada content. As a Canadian broadcaster, we recognize the importance of nurturing homegrown creative talent and have had considerable success developing the country's most-watched original and award-winning Canadian television productions. With programs such as *Corner Gas*, *Flashpoint*, *Motive*, *Saving Hope* and *Orphan Black*, we have developed a strong stable of original Canadian content that in some cases has been successfully marketed to international audiences. Our more recent programs including *The Amazing Race Canada*, *Cardinal*, *Frontier* and *Letterkenny* all continue CTV's tradition of supporting high quality Canadian programming.

371. We are immensely proud that *Cardinal* is the #1 original show in Canada and that it is now available in over 100 countries. *Frontier*, shot in Newfoundland, showcases Jason Momoa from *Game of Thrones*, and enjoys critical success on Discovery and is also available on Netflix. *The Launch* is an original six-part music series that documents an authentic, behind-the-scenes look at what it takes to break a new artist and bring a song to life. Aspiring artists are mentored by a panel of internationally renowned music industry legends. We have sold the international rights to the format to Sony Pictures and a British version of the program is now being developed.

372. Bell TV, for its part, continues to be an innovation leader globally. Fibe TV is an award-winning service and our Fibe TV app is ranked as Canada's best television app. It recreates the full Fibe TV experience on any screen, with access to more than 400 live channels and on-demand channels at home, or up to 170 on the go. Fibe TV is the first Canadian television service to be available on Apple TV, enabling consumers to experience Fibe TV alongside their music, photos, games and favourite apps, as well as the ability to control the service through one's Apple Watch.

373. The recently launched Alt TV is an app-based regulated BDU over a managed network that targets value conscious consumers most likely to disengage from Canada's regulated system. Alt TV provides much of the same functionality as Fibe TV but without the requirement to have a STB and with a correspondingly lower price (e.g., \$14.95 – less than Netflix – for all of the popular Canadian and American OTA services and Crave TV or \$29.95 for all of that plus TSN, Sportsnet, CP24, Bravo, Food Network, Space, Comedy, HGTV, CTV News Channel, CBC News Network, Discovery, and W Network).

374. Other media companies and distributors in Canada are making similar investments and efforts to innovate in order to respond to the intensely competitive environment, demonstrating that consumers can and will be well served from a cost, access, and competitiveness perspective in any regulatory environment.

5.5 The production and cultural prominence of Canadian content is at risk

375. With fierce competition and numerous viewing options, the Canadian system the Commission has chosen to regulate is threatened and by extension so is the production and cultural prominence of Canadian content. This is because foreign production expenses are not focused on Canadian stories and foreign aggregators and OTT content providers have no obligations to support Canadian content either financially or to promote its discoverability.

376. At present, Canadian content is largely funded through a mix of private sector investment and public funding. However, declining BDU revenues directly impact the Canadian programming contributions that BDUs make to various programming funds, including the CMF. Declining broadcaster revenues will also have a negative impact of the funding of Canadian content.

377. The CMF is already experiencing a decrease in private sector funding and it is fully anticipated that this will be exacerbated in the future. Consequently, the CMF will simply not be able to fund the volume of Canadian content that it currently does. At the same time, big budget "tent pole" programs designed to appeal to both domestic and international audiences have become more expensive to create, yet increasingly important as they help to make the programming services on which they are broadcast a "must buy".

378. Indeed, without public funding, certain types of programming may not exist at all. In particular, it is estimated that there will be significant funding shortfalls for almost all genres of Canadian programming including news, drama, comedy and children's programming.²²³ Where there is a surplus for certain genres of programming, they are relatively small when compared to the level of shortfalls.²²⁴

379. Crucially, it must be recognized that, to date, Netflix does not appear to have invested in Canadian programs that have not already been developed by Canadian broadcasters. Indeed, the development of our Canadian content on which we partner with Netflix (i.e., *Frontier* and *Indian Detective*) was in progress long before Netflix became involved. It is unclear that Netflix

²²³ Broadcasting Notice of Consultation CRTC 2017-359: *Call for comments on the Governor-in-Council's Request for a report on future programming distribution models*, issued 17 October 2017, Reference Document, Chart 25. Available online at <https://crtc.gc.ca/eng/television/program/s15r.htm>.

²²⁴ Ibid.

would ever develop and commission any truly Canadian productions without the participation of Canadian broadcasters. This underscores the importance of the interaction between Canadian broadcasters and the CMF.

380. There is no incentive for Netflix to commission truly Canadian productions without broadcaster participation. Foreign OTT content providers benefit from the lack of Canadian regulation while acting as a direct competitor to Canadian broadcasters and BDUs. The deal that Netflix reached with the federal government in September 2017 will reportedly see Netflix spend \$500 million over five years in Canada, but it is not clear what can be included in that amount and there is no guarantee that any production dollars would flow to programming that should be treated as Canadian for public policy purposes.

381. It is true that foreign content creators are spending more on Canada as a production location: \$3.76 billion in 2017, up 42% year-over-year.²²⁵ However, there is little evidence that they are focusing on telling Canadian stories. In reality, it is pointless to expect foreign OTT providers to focus on qualified Canadian productions as they simply want content not that is uniquely Canadian but that is designed to reflect audiences in its largest markets and is attractive to all the international markets in which they operate.

382. In its *Harnessing Change* report the Commission observed that "Online video services do not have any regulatory obligations, making it difficult to determine what they contribute to Canadian content creation."²²⁶

383. The Commission is aware of the risk in the current environment:

The content that Canadians value – whether, for example, music, news, drama, documentaries, children's or lifestyle programs – depends on the supports built into our broadcasting system. It is a dynamic cultural industry and economic ecosystem based on the engagement and contributions of Canadian creators, governments, industry members and the public. This system, however, is largely focused around traditional radio and television services. If Canadians turn away from these services in large numbers, then the system will be less able to support the creation of content. Content

²²⁵ CMPA, Profile 2017 at page 5.

²²⁶ *Harnessing Change: The Future of Programming Distribution in Canada*. See Future Viability of Business Models (Online Videos).

that is already costly or unprofitable to produce will become even more difficult to support.²²⁷

5.6 Recommended changes to the *Broadcasting Act* and related policies

384. As noted above, the Internet has opened Canadian markets to foreign players while at the same time creating new opportunities for Canadian media companies at home and abroad. These companies operate in markets that are more dynamic than ever before. To succeed, they need a statutory framework and regulatory environment that recognizes this change.

385. To ensure that we continue to have a strong Canadian broadcasting system, the guiding principles of the *Broadcasting Act* must be updated. To apply fairly to all industry players, new and old, international and domestic, while continuing to achieve our policy objectives, the legislative and policy framework must strike the right balance between protecting traditional broadcasting institutions, such as local news, and relaxing regulations to allow domestic players the flexibility to compete in a changing marketplace. Further, it must stop treating international streaming services as though they operate outside the larger broadcasting system. Canadians do not distinguish between platforms; they simply want good content. Amendments to the *Broadcasting Act* should reflect this reality.

5.6.1 Focus the Commission on modern cultural regulation

386. The Commission currently applies a wide range of economic regulations to the segment of the broadcasting market that it has chosen to regulate. In particular, within the linear system the Commission dictates who content must be made available to on a wholesale basis, the price and terms at which it is made available, the composition of retail programming packages, and the composition and price of entry level packages.

Economic regulation does not make policy sense

387. As outlined above, consumers are extremely well served with extensive retail options; domestic, foreign, and OTT broadcasters all compete in the same content acquisition markets; and traditional BDU aggregators are being overtaken by foreign OTT services. In this context, continued and extensive regulation of wholesale prices and terms and of retail pricing and

²²⁷ *Harnessing Change: The Future of Programming Distribution in Canada*. See Opportunities and Risks (Content for Canadians).

packaging is not only unnecessary but damaging to Canada's ability to achieve its economic and cultural policy objectives.

388. It is not necessary because competitive forces already ensure appropriate and innovative offerings are available to consumers in the market. For example, today Alt TV offers a skinny basic package at significantly less than the maximum skinny basic rate mandated by the Commission. Clearly, that is driven by the competitiveness of the marketplace and not by regulation.

389. It is damaging because it gives an advantage to foreign unregulated services. For example, because a programming service is competing with both foreign linear services and OTT players to acquire content, the potential for the Commission to restrict its wholesale rate through arbitration does not result in lower costs for consumers for the same content. Rather, it results in the diversion of content to the foreign and OTT services that have the ability to acquire it at market value because they know they are unencumbered by such wholesale regulation when subsequently seeking to monetize it.

390. Similarly, restricting packaging practices in the linear system does not ensure content is available on an unbundled basis. Netflix can continue to bundle thousands of hours of drama series, reality television, documentaries, movies, and other programming and Amazon can continue to bundle all of its programming together with non-broadcast items such as books and home delivery services. The impact of the regulated linear system in this regard is simply to reduce the flexibility and efficiency of the companies operating within it, who are seeking to compete with those outside it.

The Commission's current approach to regulation is unsustainable

391. The Commission's extensive economic regulation of the broadcasting industry has distorted market forces in a way that is undermining Canada's cultural objectives. This results in particular from the current regulatory dynamic produced by the elimination of must-carry rules, the continuation of the standstill and no-head start rules,²²⁸ and the Commission's approach to final offer arbitration between programmers and BDUs.

²²⁸ *Broadcasting Distribution Regulations*, section 15.01(1) and *Discretionary Services Regulations*, sections 13 and 15(1).

392. This creates a dynamic where a BDU can rely on the standstill, no head start, and general undue preference rules to effectively guarantee that they will never lose access to a channel. The only consequence to the BDU of refusing to do a market-based deal is that they end up in final offer arbitration. This is hardly a negative for the BDU, as the Commission's approach to final offer arbitration means that a programming service can not realistically achieve through arbitration a rate that is higher than rates already agreed to by similar BDUs, while the BDU can seek a lower rate and often succeed.

393. Linear programming services need BDUs for distribution but BDUs can always stop carrying a programming service if it is unable to negotiate favourable terms. Without any risk of losing a popular channel, BDUs have no incentive to offer market rates to programming services. The current dynamic has led to an increase in disputes and driven down wholesale rates for programming services at a time when programming costs are increasing and penetration is declining. In the short term, this puts additional pressure on the broadcast business model and programming services' ability to invest in their services and more specifically the Canadian programming that is the reason the broadcasting industry is regulated in the first place. Over the medium term, economic forces will simply result in market activity bypassing this regulated system entirely.

Significant uncertainty should be addressed

394. Both the Supreme Court of Canada and the Federal Court of Appeal have confirmed that under the *Broadcasting Act* the Commission must act with "a primarily cultural aim" and that it cannot simply regulate "the economic relationship" between participants in the broadcasting system.²²⁹ For example, the Federal Court of Appeal stated as recently as October of 2018 that:

[I]t is not reasonable to interpret paragraph 9(1)(h) as granting the CRTC a general power to regulate the terms and conditions of affiliation agreements. This interpretation goes far beyond the ordinary meaning of the language in paragraph 9(1)(h) and is not reasonably supported by a textual, contextual and purposive interpretation of the legislation.²³⁰

²²⁹ Reference re Broadcasting Regulatory Policy CRTC 2010-167 and Broadcasting Order CRTC 2010-168, [2012] 3 SCR 489, 2012 SCC 68 at paragraphs 19, 29 and 32.

²³⁰ *Bell Canada v. 7265921 Canada Ltd.*, 2018 FCA 174 at paragraph 167.

395. Nevertheless, significant uncertainty exists in this area. For example, the Commission continues to apply its extensive wholesale regulatory framework targeting the economic relationship between programming undertakings and distribution undertakings that has twice been called into question by the courts. This uncertainty is not conducive to developing commercial solutions to the extensive challenges faced by the industry.

Recommended changes to legislation and policy

396. We recommend changes to the *Broadcasting Act* that will eliminate any uncertainty and confirm that the proper purpose for regulation in the broadcasting industry is to promote Canada's cultural policy objectives.

397. This includes two specific changes. First, it should be regulatory policy that the Commission rely to the greatest extent possible on market forces. Such a change would recognize the modern dynamic competition that exists in the supply of audiovisual content to consumers. Second, a new section should be added to clarify that wholesale arrangements are governed by the commercial framework established by the *Copyright Act* and not by alternative mandatory arbitration or similar processes that might be developed by the Commission. Even with this clarification, the Commission would retain the power to order BDUs to carry a service on terms agreed to by the relevant programming undertaking. These are reflected in Figure 33 below.

Figure 33

Proposal – New proposed language to section 2(a) and 11.1

Regulatory policy

(2) The Canadian broadcasting system should be regulated and supervised in a flexible manner that

(a) relies to the greatest extent possible on market forces;

...

Limitation

11.1 Notwithstanding anything in this Act, commercial arrangements between programming undertakings and distribution undertakings shall be governed by the Copyright Act.

398. These changes should result in the removal of the standstill, no head starts, and final offer arbitration rules, none of which currently apply to foreign services or OTT providers.

399. We also suggest that the Panel recommend, in conjunction with the addition in section 2(a), that the Commission conduct a comprehensive review of any remaining economic and retail regulation in the broadcasting industry in light of the state of the market in 2019. The objective of such a review would be to identify regulations that, though they perhaps served a valid purpose at a particular moment of the evolution of the broadcasting system, cannot be justified in the year 2020 and beyond. We anticipate that such a review would call into question Commission intervention on retail packaging and the composition and pricing of a so-called skinny basic service. Eliminating these rules or making them less prescriptive would contribute to increasing the flexibility of existing operators to respond to the changing market.

400. These changes would shift the Commission's mandate and regulatory framework from focusing on the micro-regulation of the traditional linear broadcasting ecosystem to a focus on the creation, delivery, promotion and exportability of Canadian content supported by strong and sustainable Canadian broadcasters.

5.6.2 Eliminate the regulatory advantage given to foreign services

401. To date, the Commission has not applied any regulation to foreign-owned services operating in Canada, whether over the Internet or distributed by Canadian BDUs. On the other hand, Canadian services within the linear system are heavily regulated in nearly every aspect of their business.

402. Such an approach may have been appropriate a decade ago but, as set out in section 3.3 above, today a two-tiered regulatory system is outdated. Linear and online content distribution models in particular are not separate silos, but competitors within the same ecosystem that influence each other's outcomes. Notably, the behaviour of Canadians supports this viewpoint – consumers interchange services from all of these providers to best meet their demands. There is nothing about large foreign-owned services operating in Canada that warrants a unique exemption from regulation.

403. The regulatory advantage afforded to foreign OTT services is also a significant obstacle to the success of domestic OTT services such as Crave TV. The operators of these services have no obligation to help support Canadian content either through expenditure or exhibition requirements, nor ensure that a set amount of funding is directed to independent producers. Nor do they invest in the infrastructure over which their services are delivered or even charge HST.

404. It is clear that OTT services will become more, as opposed to less, prevalent in the future, and therefore the policy framework must support the development of Canadian services alongside foreign ones. In view of the above, it is time for a more symmetrical application of broadcasting regulations. The Commission has recognized the need to reform its broadcasting policies to address this concern:

To ensure a vibrant domestic market and be equitable to all players, it will be essential to develop better regulatory approaches that engage all audio and video services and for each to participate in the most appropriate ways in creating and promoting content by and for Canadians. Accordingly, if legislative change is to take place, it should clearly and explicitly make any video or audio services offered in Canada and/or drawing revenue from Canadians subject to the legislation and incorporate them into the broadcasting system. This should apply to traditional and new services, whether Canadian or non-Canadian. Further, any new or revised legislation should be founded on the principle of ensuring that Canadians continue to have access to high quality audio and video content and that is made by and for Canadians, as well as the best content from around the world, regardless of the platform, device or technology they wish to use. This principle is, in essence, similar to many of the current *Broadcasting Act* objectives, updated to better reflect the future of content distribution in Canada.²³¹

Recommended changes to legislation and policy

405. We have set out in section 3.3 the regulatory model that we recommend be applied to eliminate the regulatory advantage currently given to foreign-owned services. This model is summarized in the following chart:

²³¹ *Harnessing Change: The Future of Programming Distribution in Canada*. See Conclusions and Potential Options.

Programming Services		
	Funding	Other Rules & Obligations
<i>Canadian linear services & Canadian OTT services earning more than \$300 million in annual revenue in Canada</i>	20% of Canadian revenue to the CMF or otherwise invested in the production of Canadian content	No exhibition requirements or PNI or independent production requirements
<i>Foreign linear and OTT services made available in Canada by an operator with more than \$1 billion in annual revenue from all worldwide operations <u>or</u> earning more than \$300 million in annual revenue in Canada</i>	20% of Canadian revenue to the CMF	Cannot acquire exclusive Canadian OTT rights to CMF-funded programming nor can they access the CMF
BDUs		
	Funding	Other Obligations
<i>Canadian Licensed</i>	5% of Canadian revenue to the CMF	Must carry 9(1)(h) services No other funding obligations including community television and other production funds No linkage or other protections for independent services No requirement to offer the small basic service or flexible packaging Retain retransmission rights for OTA services
<i>Canadian OTT Service earning more than \$300 million in annual revenue in Canada</i>		No licensing obligations No retransmission right to OTA services
<i>Foreign OTT Services made available in Canada by an operator with more than \$1 billion in annual revenue from all worldwide operations <u>or</u> earning more than \$300 million in annual revenue in Canada</i>		

406. To give effect to this policy, we are recommending two changes to the *Broadcasting Act*. First, as the Commission has requested, reference to the Internet should be added prominently to relevant sections of the legislation to eliminate any doubt about whether it should be applied to OTT services.

407. Second, it should be regulatory policy that the Commission cannot disadvantage Canadian players relative to foreign players and in particular, that it cannot impose obligations on Canadian OTT services that are not imposed on foreign OTT services. Canadian-owned

services competing on the global Internet should not be disproportionately subjected to regulation simply because they are an easier regulatory target.

408. In addition, we urge the Panel to recommend that the government take immediate steps under the existing legislative framework (such as the directions discussed in section 3.0) to give the Commission confidence that it can begin levelling the playing field now, as it has recognized should be done.

409. Finally, we urge the Panel to support the recommendation we and others have made to level the tax playing field in Canada by requiring foreign companies to collect and remit sales taxes when they sell subscriptions to their services in Canada. In this regard, e-commerce is a large and growing source of sales tax revenue for Canada. Retail e-commerce sales in Canada were over \$45 billion in 2017 and are expected to continue to grow at a double-digit pace for the foreseeable future.²³² However, companies that sell digital goods and services to Canadians but can otherwise claim not to carry on business in Canada, such as foreign OTT content providers, are not required to register for GST/HST and collect and remit these taxes to the Canadian Revenue Agency (CRA).²³³ This longstanding oversight has significant implications.

410. First, it causes significant lost tax revenues for Canada. The Canadian Centre for Policy Alternatives (CCPA) estimated that Netflix alone was responsible for tax losses of more than \$62 million in 2016.²³⁴ Accounting for growth since then, it is likely that annual sales tax losses from Netflix will be more than \$100 million in 2018.²³⁵ More broadly, Revenu Quebec estimated that tax losses resulting from uncollected Quebec Sales Tax on goods and services purchased online from vendors outside of Canada totaled \$227 million in 2017.²³⁶ Extrapolating from these estimates, the annual federal sales tax lost would be approximately \$501 million.²³⁷

²³² eMarketer, *Ecommerce in Canada 2018: eMarketer's Latest Forecast, with a Focus on Grocery*, January 2018.

²³³ CRA's GST/HST Policy Statement P-051R2, dated 29 April 2005, states that non-resident businesses (those with no offices, employees, bank accounts in Canada) supplying digitized content through websites over the internet to consumers in Canada, are not carrying on business in Canada, where the servers used are located outside Canada.

²³⁴ CCPA, page 13. Assumes a household price of \$9.99 and uses the Ontario HST rate as a proxy.

²³⁵ Based on a growth in subscribers from 5.1 million to 6.2 million and a \$1/month increase to the standard subscription price.

²³⁶ Gouvernement du Québec, *The Québec Economic Plan : Additional Information 2018-2019*, B-12.

²³⁷ Revenu Quebec estimated a loss of over \$227 million in sales tax from vendors outside of Canada, or 1.33% of the sales tax actually collected by Quebec (\$17 billion) in 2017. The 2018 Federal Budget expects \$37.7 billion in Government Sales Tax (GST) during the 2018-19 fiscal period. Applying the Quebec lost tax factor of 1.33%, the annual lost GST is estimated to be around \$501 million.

411. Second, it puts Canadian firms at a competitive disadvantage. All things being equal, digital goods from firms that do not charge the GST/HST are 13% less expensive than the same goods purchased from firms that do.

412. Third, it serves as a disincentive for foreign companies to invest in Canadian operations. Instead, it creates an incentive for firms to ensure they have no operations or employees in Canada whatsoever. As a result, the policy is reducing jobs in Canada and foregoing the economic stimulus associated with foreign investment.

413. It is therefore not surprising that Canada is quickly becoming an exception internationally by ignoring this tax problem. More than 50 countries have modernized their tax policies to require non-resident companies to charge sales tax on digital goods and services. For example, the 28 members of the European Union, as well as Australia, India, Norway, South Africa, Japan, and Russia have already updated their policies, while Singapore, Thailand, and Israel have signaled their intentions to do so in the near future.²³⁸

414. Domestically, there is an emerging consensus that changes to the federal e-commerce sales tax policy are needed quickly. The Standing Committee on International Trade recently recommended making this change.²³⁹ Similarly, the Canadian Centre for Policy Alternatives (CCPA) and the C.D. Howe Institute recommended that Canada join the rest of the world and require foreign e-commerce vendors to remit taxes.²⁴⁰ In addition, Quebec recently enacted legislation requiring foreign and out-of-province digital vendors to collect and remit provincial sales taxes.

415. Given the impact of this policy on the broadcasting industry in particular, the Panel should encourage government to immediately clarify that digital vendors such as foreign OTT services must charge Harmonized Sales Tax (HST) on sales in Canada. If either the Panel or the government believes that foreign online video streaming services cannot or should not be required to collect and remit sales tax, then the alternative should be to remove sales tax from Canadian video streaming services in order to level the playing field in this respect.

²³⁸ For example, see 2017 KPMG Study, *VAT/GST treatment of cross-border services*.

²³⁹ Standing Committee on International Trade, *E-Commerce: Certain Trade-Related Priorities of Canada's Firms* (April 2018), page 21.

²⁴⁰ Canadian Centre for Policy Alternatives, *An Over-the-Top Exemption* (June 2016), and C.D. Howe Institute, *Bits, Bytes, and Taxes: VAT and the Digital Economy in Canada* (August 2017).

5.6.3 Adopt a sustainable model for local television

416. As described in section 3.4.1 above, local television is a foundational element of the Canadian broadcasting system. Unlike any other element, it connects, entertains and informs local viewers, and reflects the interests and concerns of local communities. It is also a foundational element of Canada's news ecosystem, and in many communities local television stations remain one of the primary or only sources for local news and information.

417. As the then Minister of Heritage acknowledged in the policy framework for the *Creative Canada* initiative, "an independent, trustworthy news ecosystem, reflecting diverse Canadian perspectives and fostering dialogue on public issues, is fundamental to the health of Canada's democracy."²⁴¹ The Commission has also recognized that local news is an important democratic institution:

A vibrant and dynamic news ecosystem is one of the cornerstones of any democracy, since it permits citizens to remain informed of matters of public concern and thus enables their participation in the democratic system. Television news, especially at the local level, is an important source for the gathering and production of locally relevant and reflective news.²⁴²

418. Given the important contributions local news and programming make to Canadian democracy and the vitality of local communities, it is essential that a solution be found to ensure the survival of local television stations. Policymakers have known for a decade that the legislative framework governing local television is broken and it is widely recognized that local television is in structural decline.

There are no easy solutions

419. Local television has tried to adapt through cost-cutting and providing programs that better fit its structural and operational parameters.²⁴³ The Commission has also provided some opportunities to reduce regulation or divert funding from other obligations to provide more financial stability.²⁴⁴ However, these types of measures do not address the structural challenge

²⁴¹ Canadian Heritage, "Creative Canada Policy Framework" (2017), page 32.

²⁴² Broadcasting Regulatory Policy CRTC 2016-224, *Policy framework for local and community television*, paragraph 17.

²⁴³ For example, with specials and live events, reality television, limited run dramas and mini-series as well as live theatrical productions.

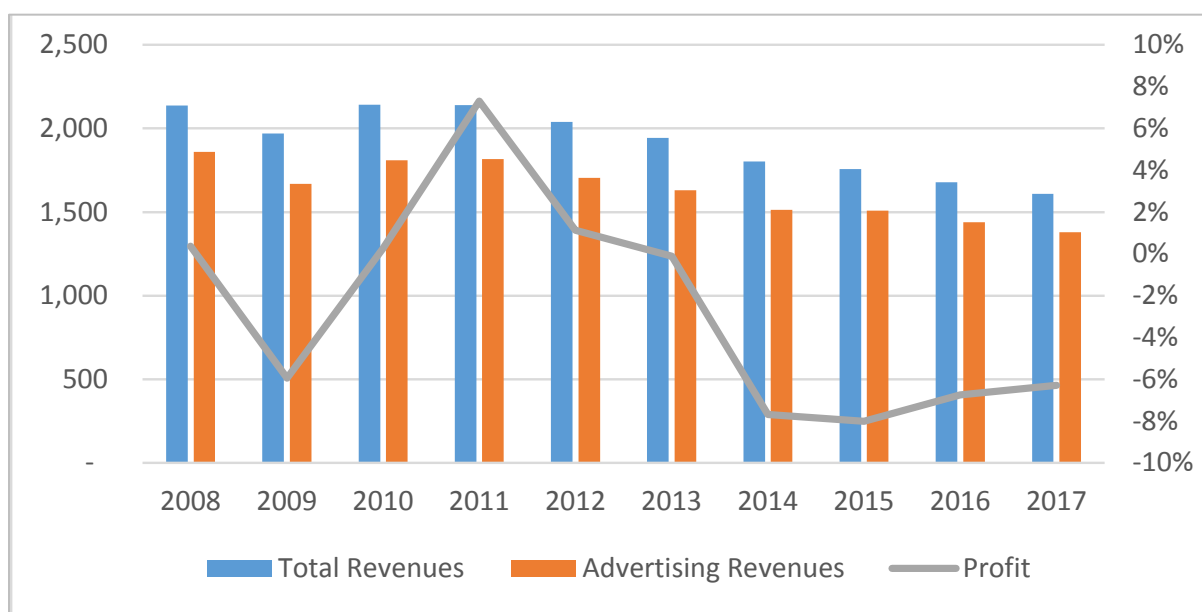
²⁴⁴ For example, with unlimited advertising minutes and more recently, by permitting BDUs to direct some of their community television spending to local television stations to assist in their production of local news.

caused by declining advertising revenues combined with legislatively mandated reliance on an advertising-only business model.

420. Armstrong Consulting was commissioned to examine the trends in the economic structure and performance of the Canadian private broadcasting industry, including that of local television (the Armstrong report). The report details several key metrics. First, as shown in Figure 34, over the period 2008-2017, local television revenues have trended downwards as has profitability. In fact, the private conventional television sector has operated at a loss in six of the past 10 years with a negative profit and in each of the last five years:²⁴⁵

Figure 34

Private Conventional Television, Total Revenues (\$M), Advertising Revenues (\$M), Profits (PBIT %), 2008 to 2017



421. Second, despite the revenue pressure, local television stations have remained committed to providing news and Canadian voices as evidenced by their news expenditures increasing and CPE increasing as a percentage of revenue (see Figure 35). Contrary to popular belief, local television stations have chosen to decrease their expenditures on foreign programming as noted in Figure 36 below.²⁴⁶

²⁴⁵ Armstrong Report, Figure 1.

²⁴⁶ Armstrong Report, Figure 2 and 3.

Figure 35

**Private Conventional Television, Canadian Program Expenditures (\$M),
News Program Expenditures (\$M), CPE % of Revenues, 2008-2017**

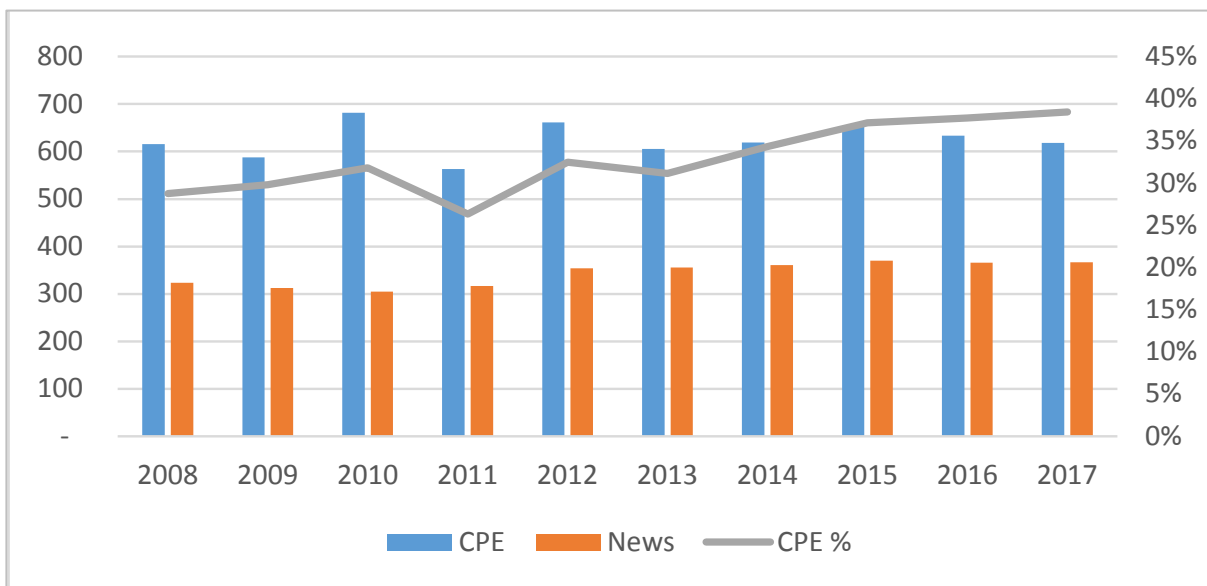
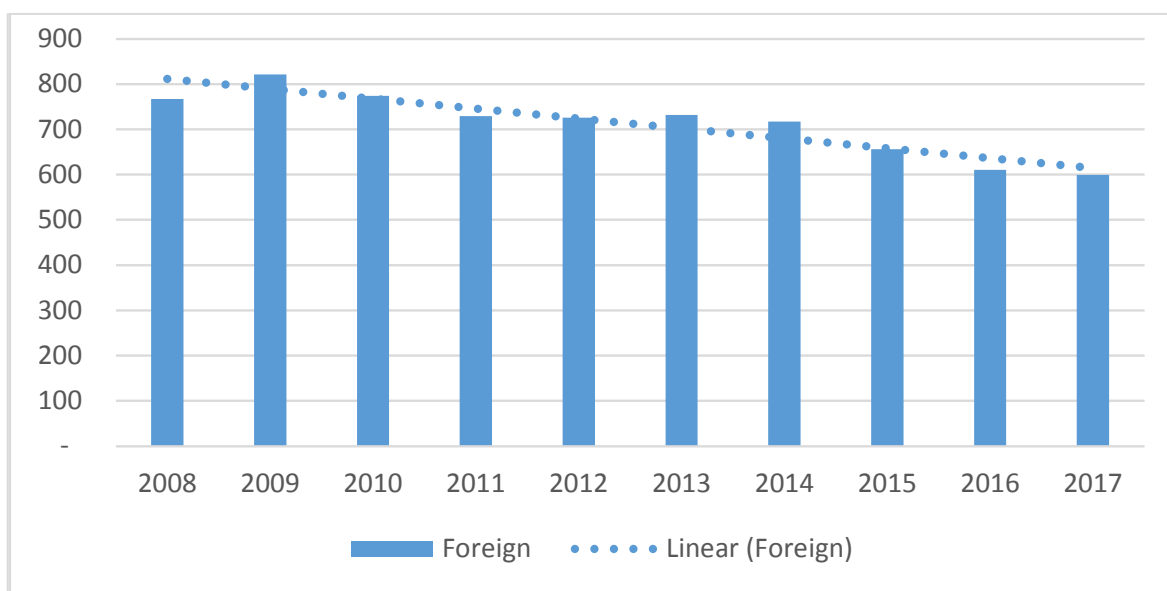


Figure 36

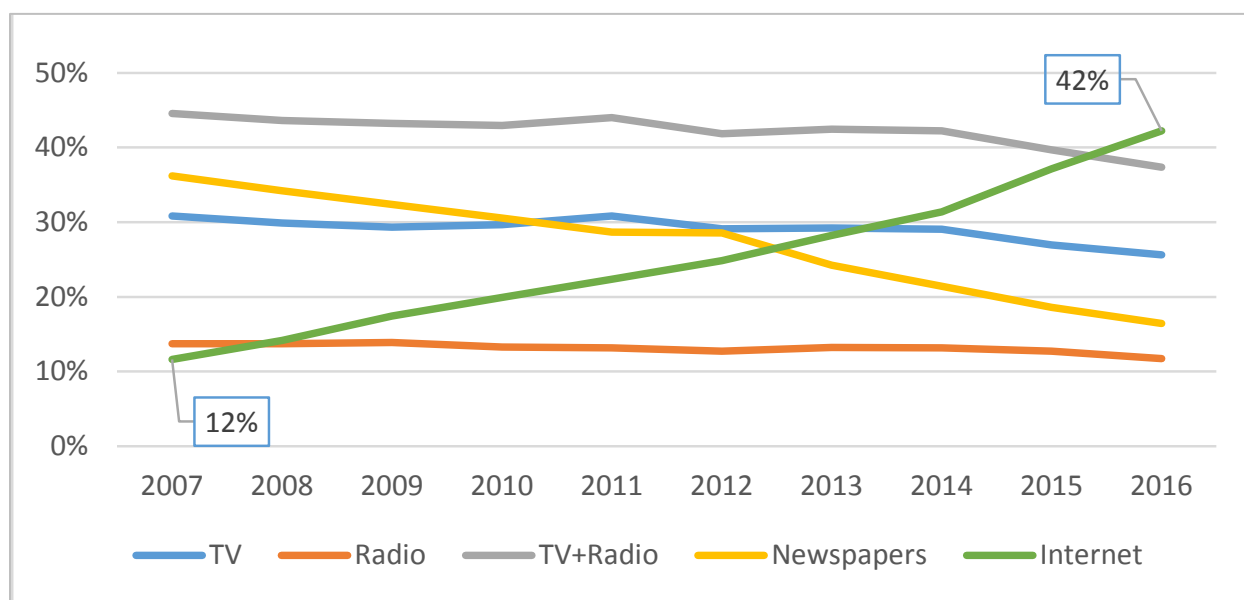
**Private Conventional Television, Foreign Program Expenditures (\$M)
and Trend Line, 2008 to 2017**



422. Third, advertising dollars are increasingly migrating away from linear television to digital platforms. Between 2007 and 2016, digital media has taken a substantial share of the advertising market in Canada, with Google and Facebook now sharing over one-third of Canada's advertising market. Moreover, in 2016, Internet advertising commanded 42% of the share of revenues compared to 25.6% for television. This has now increased to 45% and 23% respectively as noted by Figure 37 below.²⁴⁷

Figure 37

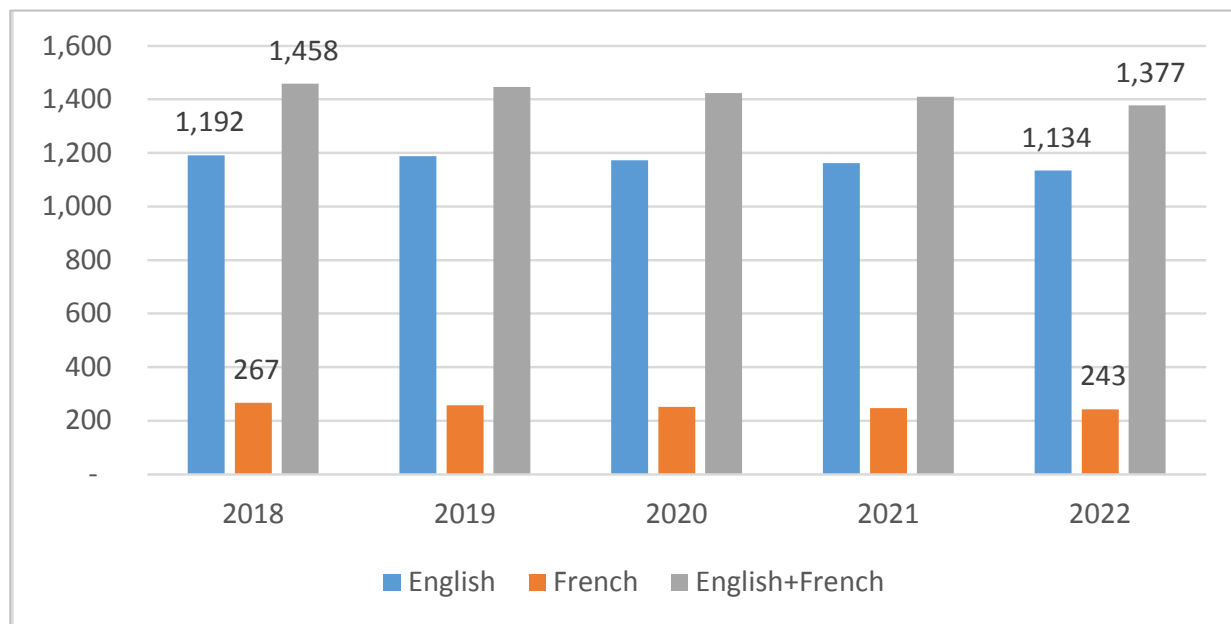
Share of Reported Media Advertising Revenues, TV, Radio, TV+Radio, Newspapers, Internet, 2007-2016



423. The financial picture for local television is not projected to improve as the revenues of the major private conventional television groups are expected to decrease over the period 2018 to 2022 as noted by Figure 38 below.²⁴⁸

²⁴⁷ Scotia Bank, *Converging Networks*, 11 December 2017, pages 1 to 3 and Armstrong Report, page 20.

²⁴⁸ Armstrong Report, page 5.

Figure 38**English and French Private Conventional Television Groups,
Projected Revenues (\$M), 2018 to 2022**

424. The only possible conclusion is that the reliance on a single revenue stream cannot sustain the continued production of local news. As detailed in the study *Local Television News in Canada – Prospects and Proposals for Action* (the Miller Report), the strategies employed to date by local television stations cannot continue.²⁴⁹ These include accepting low or negative profits, cutting programming expenses other than news, and reducing off-screen programming expenses through investments in technology. In some cases, stations have changed the type of local stories broadcast and centralized their news operations. And while Bell Media's local stations are proud to offer more local programming and local news than what is mandated by the Commission, we are now being forced to consider reducing the amount of local programming and news we provide.

425. Unless the root problem is addressed, the structural deterioration of local television will continue. Many local broadcasters are now unprofitable, with little prospect of reversing these trends, and the Miller Report projects that it is only a matter of time before more local television stations follow the unfortunate lead of newspapers and begin to close their doors. Local broadcasters are approaching the limit of the operational savings they can achieve while

²⁴⁹ Miller Report, pages 22 to 24.

preserving a product that appeals to viewers. As stated by Miller, "without concerted policy action, the closure of more than 50% of Canada's small and medium market stations by 2023 seems almost inevitable".²⁵⁰

The only solution is to unlock a subscriber revenue stream

426. Allowing local television to earn subscriber revenues is the only way to ensure its survival. This is the conclusion the Commission itself reached a decade ago, and it continues to be featured as a solution in studies – such as the *Harnessing Change* report, where the Commission indicated it was willing to continue to "examine ways to support television news production through increased access to subscription revenues."²⁵¹ It is also confirmed by international comparisons. As the Miller Report details, the sustainability of local television is not unique to Canada. There are, however, two key respects in which Canada differs from other countries. First, we have local television in markets of all sizes throughout Canada, rather than just large centres. Second, we rely almost exclusively on advertising revenues.

427. In the United Kingdom, the emphasis has been on national news sources rather than local, with few, if any local television stations in existence until 2002. Today, these stations are struggling from both a financial and viewership perspective. However, irrespective of this, these local stations have never gained a reputation for local news given the engrained reach of the BBC. In that context, there have been suggestions for increased support for local media, including reforming news subsidies and regulating Internet companies, such as Facebook and Google, to ensure that they support local news in a meaningful way.

428. In the United States, local television stations are performing better than those in the United Kingdom and in Canada. There are two key reasons for this. First, the American framework protects the integrity of local programming rights through network non-duplication and syndication exclusivity (syndex) rules that require BDUs to blackout all programming (not just simultaneous programming) imported into local markets where a local station has the broadcast rights and through prohibiting the importation of distant signals. Second, the United States has a retransmission consent regime that allows local television stations to negotiate compensation for carriage by BDUs. In 2017, retransmission consent revenue exceeded \$9

²⁵⁰ Miller Report, page 29.

²⁵¹ *Harnessing Change: the Future of Programming in Canada*. See Conclusions and Potential Options: Short to medium term steps.

billion (with advertising revenue of \$17.4 billion) and by 2023, it is projected to be \$12.8 billion. These are the revenues that sustain American local television.

Recommended changes to legislation and policy

429. As we described in section 3.4.2, the business model for local television can be fixed by the Commission under the existing legislative framework or by Parliament through legislative change. In our view, the most straightforward and least disruptive approach is for a Parliament to add a new subsection to section 9 of the *Broadcasting Act*, as set out in Figure 39, below.

Figure 39

Proposal – Additional conditions on licences and exemptions

Requirement re conditions

9 (5) Notwithstanding subsections 9(1), 9(4), and 28(3), every licence of a distribution undertaking or exemption for a distribution undertaking must be made subject to a condition that requires the licensee to pay a fee to a Canadian programming undertaking for the retransmission under section 31(2) of the *Copyright Act* of a local signal or distant signal of that programming undertaking that meets local news obligations imposed by the Commission

Determination of fee

9 (6) The Commission shall make regulations setting out the manner in which the fee referred to in subsection (5) is to be determined.

430. Under this approach, local television stations would receive a subscriber fee from BDUs. The fee could be commercially negotiated or set by regulation, as determined by the Commission. In all other respects, the operation and retransmission of local television stations would continue uninterrupted.

431. The alternative is for the Commission to move under the existing legislation to a "local discretionary" model in which licensed Canadian local television stations would receive a wholesale fee in order to support local programming. This approach would require the following:

- Local OTA transmitters to be shut down, with existing local stations then converted into local discretionary services;
- Local discretionary services to be accorded mandatory basic carriage under section 9(1)(h) of the *Broadcasting Act*;

- Local discretionary services to retain simultaneous substitution rights for the program rights they have acquired as well as their ability to solicit local advertising;
- Local discretionary services to be made eligible to charge wholesale subscriber fees set by the Commission from those local markets where local programming commitments are met. For greater certainty, wholesale fees would not be payable for those markets in which an existing station is available locally through a local signal retransmitter, although such stations would continue to be distributed on basic in those markets as they are today.

432. Local discretionary services would continue to be subject to the same weekly local programming requirements, including local news requirements and new licensees would be required to demonstrate that the market in question could sustain the introduction of a new service, much as an applicant for a new conventional television station would be required to do today. In addition, given the poor financial health of the conventional television sector and to ensure a smooth transition, we propose a three-year moratorium on the issuance of new local specialty licences from the implementation date of this new approach.

433. This proposal is a version of what the Commission has established vis-à-vis OMNI Regional as an approach to address failing OTA stations. It would simply need to be applied across the private television industry as a whole.

6.0 ADMINISTRATION AND OTHER ISSUES

6.1 Appeal and judicial review

434. The Panel's Call for Comments seeks input on "the mechanisms for legal oversight in the system." Generally speaking, we believe existing oversight mechanisms including in particular the ability to appeal under both the *Telecommunications Act* and *Broadcasting Act* to the Federal Court of Appeal are appropriate. The ability to appeal provides the only source of independent oversight of decisions that have significant financial and other impacts on individual participants in the broadcasting system and that determine contentious bilateral disputes. It is a crucial element of the regulatory framework.

435. In accordance with this view, we recommend that the requirement to obtain leave for appeals under both Acts be removed. This is for two reasons. First, the requirement to obtain leave results in incremental delay in reaching a final outcome that could have a very large impact given the extremely fast pace at which telecommunications and broadcasting markets are moving. Second, in practice leave to appeal has routinely, though not always, been granted because the parties affected by Commission decisions typically know when cases are not strong enough to warrant an appeal. Any benefits in terms of reduced burden on the courts from screening out weak cases would be more than outweighed by the additional burden imposed by processing leave applications. Parties will continue to exercise discipline with respect to the cases they choose to appeal in the absence of a leave requirement due to the costs associated with mounting a full appeal.

436. Our recommended changes to remove the requirement to apply for leave to appeal are set out in Figures 40, 41, 42 and 43 below.

Figure 40

Proposal – Revisions to the *Telecommunications Act* to remove the requirement to seek leave to appeal

Appeal to Federal Court of Appeal

64 (1) An appeal from a decision of the Commission on any question of law or of jurisdiction may be brought in the Federal Court of Appeal.

...

Argument by Commission

64(6) The Commission is entitled to be heard at any stage of an appeal, but costs may not be awarded against it or any of its members.

...

Copy of decision and notice of rights

72.007 (4) The Commission shall cause a copy of any decision made under subsection (2) or (3) to be issued and served on the person together with a notice of the person's right to apply for a review under section 62.

...

Copy of decision and notice of rights

72.08 (4) The Commission must cause a copy of any decision made under subsection (2) or (3) to be issued and served on the person together with a notice of the person's right to apply for a review under section 62.

Figure 41

Proposal – Remove the below sections in the *Telecommunications Act*

Entry of appeal

31 (3) No appeal lies after leave therefor has been obtained under subsection (2) unless it is entered in the Federal Court of Appeal within sixty days after the making of the order granting leave to appeal.

Figure 42

Proposal – Revisions to the *Broadcasting Act* to remove the requirement to seek leave to appeal

Appeal to Federal Court of Appeal

31(2) An appeal lies from a decision or order of the Commission to the Federal Court of Appeal on a question of law or a question of jurisdiction if an application is made within one month after the making of the decision or order sought to be appealed from or within such further time as that Court under special circumstances allows.

Figure 43

Proposal – Remove the below sections in the *Broadcasting Act*

Application for leave

64 (2) Leave to appeal shall be applied for within thirty days after the date of the decision appealed from or within such further time as a judge of the Court grants in exceptional circumstances, and the costs of the application are in the discretion of the Court.

Notice

64 (3) Notice of an application for leave to appeal shall be served on the Commission and on each party to the proceedings appealed from.

Time limit for appeal

64 (4) An appeal shall be brought within sixty days after the day on which leave to appeal is granted.

6.2 Competition Tribunal oversight of competition economic decisions

437. We generally believe that the regulatory responsibilities allocated to the Commission, the Federal Court of Appeal, and government in relation to the regulation of telecommunications are appropriate and should be maintained. As set out in section 3.1.4, above, however, the one area where we would encourage the Panel to recommend a change is with respect to the economic determination (e.g., market definition and market power) under our proposed section 27 of the *Telecommunications Act*. Specifically, we propose that these economic determinations by the Commission be reviewable by the Competition Tribunal.

438. Neither of the possible avenues for oversight under the existing allocation of responsibilities is appropriate for economic findings. Review by the Governor-in-Council is a political process that may be appropriate for matters of broad policy but is not for technical economic findings. Similarly, courts can review legal and jurisdictional errors and the reasonableness of factual findings, but they are not well placed to make technical economic determinations.

439. The Commission has expertise in telecommunications but not particularly in the area of economics (for example, unlike OFCOM and the Federal Communications Commission, the Commission does not have a chief economist). Because determining whether SMP exists or the essential facilities test is met is such an important part of regulatory decision-making under our proposed framework, oversight by a body intended to be expert in making these kinds of determinations is appropriate. We are therefore recommending the changes to the *Telecommunications Act* set out in Figure 44, below.

Figure 44

Proposal – Review of Economic Determinations by the Competition Tribunal

Review by the Competition Tribunal

Scope of Review

64.1 (1) A review of a decision of the Commission pursuant to subsection 27(5) or 27(6) may be initiated by application to the Competition Tribunal within sixty days after the date of the decision reviewed or within such further time as the Competition Tribunal grants in exceptional circumstances.

(2) In its review, the Competition Tribunal may make any finding of fact that it determines is consistent with the evidence that was before the Commission and may vary any finding or determination of the Commission with respect to significant market power pursuant to subsection 27(5) or any finding of the Commission pursuant to subsections 27(6)(a) or 27(6)(b).

Variation

(3) Where the Competition Tribunal varies a Commission finding or determination, the Commission shall adopt the finding or determination of the Competition Tribunal and vary its decision accordingly.

Notice

(4) Notice of an application for review shall be served on the Commission and on each party to the proceedings reviewed.

Argument by Commission

(5) The Commission is entitled to be heard on any review, but costs may not be awarded against it or any of its members.

CHANGES TO THE COMPETITION TRIBUNAL ACT

Jurisdiction

8 (1) The Tribunal has jurisdiction to hear and dispose of all applications made under:

- (a) Part VII.1 or VIII of the Competition Act and any related matters, as well as any matter under Part IX of that Act that is the subject of a reference under subsection 124.2(2) of that Act; and
- (b) Section 64.1 of the Telecommunications Act.

Rules

16 (1) Subject to the approval of the Governor in Council, the Tribunal may make general rules that are not inconsistent with this Part or the Competition Act or Telecommunications Act...

440. To be clear, we are not suggesting that the Commission would not be involved in economic determinations. In fact, these findings would initially need to be made by the Commission. Without such a finding, there would be no decision to review. However, following such a finding, a party could challenge that finding before the expert economic authority (the Competition Tribunal) that would decide the case on the basis of the evidence as filed with the

Commission. Our proposed approach has the benefit of relying on the expertise of the Commission in telecom but allowing an appeal of fact to an expert panel on competition and economic theory and facts.

441. We recommend that this new regulatory review process be incorporated in the *Telecommunications Act* as a new section 64.1²⁵². The language and process that we have proposed draws on the existing language set out in section 64, which provides for appeals to the Federal Court of Appeal.

*** End of Document ***

²⁵² A further consequential amendment to the Competition Tribunal's jurisdiction set out in subsection 8(1) of the *Competition Tribunal Act* would also be necessary empower the Competition Tribunal to perform such reviews.

Figures A1-1, A1-2 and A1-3, below, indicate the number of unique wireless advertisements by carrier each month since January 2016. It is important to note that these counts do not include instances where a wireless carrier uses the same advertisement more than once (i.e., number of occurrences). In practice, companies use a single advertisement many times over weeks or months, and in multiple geographic regions, so the advertising counts would be much higher if all occurrences were included.

In addition, our ability to track advertisements is limited. For example, the digital ads only include banner ads, emails and short message service (SMS) ads and exclude all other forms of digital ads (e.g., video). The radio counts also exclude French-language ads as the research services we subscribe to do not track them and we have not found an acceptable alternative source for tracking this information. Therefore, the counts below, while indicative of the large amount of promotional activity taking place, significantly underestimate the actual amount of advertising activity in the marketplace.

Figure A1-1
Number of Unique Wireless Print Ads in Canada
(Jan. 2016 – Sept. 2018)
(Does not include occurrences)

	Bell	EastLink	Fido	Freedom/ WIND	Public Mobile	Rogers/ Chatr	Sasktel	Telus/ Koodo	Vidéotron	Virgin	Total
Jan-16	1	0	0	2	0	4	0	2	6	0	15
Feb-16	0	0	2	2	0	1	1	2	3	0	11
Mar-16	11	0	1	2	3	6	1	10	6	4	44
Apr-16	0	0	1	5	0	1	0	6	3	1	17
May-16	6	0	3	3	1	1	0	1	6	0	21
Jun-16	11	1	0	2	0	9	2	2	6	2	35
Jul-16	0	0	3	1	1	2	0	3	7	0	17
Aug-16	3	0	4	11	0	4	0	7	8	3	40
Sep-16	8	1	0	3	0	5	1	3	4	0	25
Oct-16	10	0	8	6	0	9	1	5	7	2	48
Nov-16	11	0	5	5	0	13	1	6	8	9	58
Dec-16	14	0	0	6	0	7	0	4	0	1	32
Jan-17	3	0	3	6	0	4	0	1	2	0	19
Feb-17	6	0	2	8	0	8	1	0	3	0	28
Mar-17	20	0	4	2	0	10	0	3	3	5	47
Apr-17	9	0	0	4	0	8	0	3	4	1	29
May-17	18	0	2	8	0	0	1	9	4	1	43
Jun-17	15	1	3	10	0	14	1	5	2	2	53
Jul-17	8	0	3	3	0	5	1	2	7	0	29
Aug-17	12	0	2	2	0	5	0	2	4	6	33
Sep-17	8	0	0	4	0	4	2	6	4	0	28
Oct-17	4	0	0	8	0	8	0	7	2	0	29
Nov-17	15	0	5	2	0	2	1	7	13	5	50
Dec-17	8	0	3	0	0	1	0	0	6	0	18
Jan-18	4	0	0	0	0	0	0	0	1	0	5
Feb-18	2	0	2	0	0	4	2	1	3	0	14
Mar-18	11	2	1	1	0	7	0	2	8	2	34
Apr-18	6	2	0	1	0	5	0	1	1	0	16
May-18	9	0	3	0	0	5	0	0	3	3	23
Jun-18	6	0	0	0	0	2	0	7	4	4	23
Jul-18	5	0	0	1	1	4	0	1	6	2	20
Aug-18	19	0	4	0	0	5	0	3	4	6	41
Sep-18	2	0	0	0	0	5	0	2	4	2	15
Total	265	7	64	108	6	168	16	113	152	61	960

Figure A1-2
Number of Unique TV & English Radio Ads in Canada
(Jan. 2016 – Sept. 2018)

(Does not include occurrences; information on French Radio ads not available)

	Bell	EastLink	Fido	Freedom/ WIND	Rogers/ Chatr	Sasktel	Telus/ Koodo	Vidéotron	Virgin	Total
Jan-16	0	1	0	1	7	2	3	1	0	15
Feb-16	7	1	2	0	4	1	3	4	1	23
Mar-16	9	0	1	0	5	0	4	0	2	21
Apr-16	5	0	2	1	3	1	4	0	1	17
May-16	6	0	0	1	4	0	1	0	0	12
Jun-16	6	2	7	0	8	0	4	4	6	37
Jul-16	3	0	2	1	6	2	2	1	3	20
Aug-16	12	0	4	3	14	0	4	8	4	49
Sep-16	7	0	3	2	9	0	2	2	0	25
Oct-16	4	0	5	0	4	0	2	0	2	17
Nov-16	8	0	3	5	5	0	2	1	4	28
Dec-16	1	0	1	4	6	1	8	1	3	25
Jan-17	3	0	2	2	3	0	1	0	0	11
Feb-17	0	0	4	2	17	3	13	3	2	44
Mar-17	4	0	4	1	6	0	3	1	2	21
Apr-17	3	0	3	2	6	0	6	3	2	25
May-17	16	4	1	4	7	1	7	1	0	41
Jun-17	8	2	3	3	3	0	6	1	2	28
Jul-17	7	0	2	3	10	2	4	1	1	30
Aug-17	9	0	5	10	8	1	2	8	7	50
Sep-17	11	1	0	4	3	2	8	4	3	36
Oct-17	4	1	3	4	3	0	5	2	0	22
Nov-17	3	1	1	0	6	0	0	8	2	21
Dec-17	5	2	3	6	1	1	2	2	4	26
Jan-18	5	1	0	1	7	1	1	1	0	17
Feb-18	6	1	2	0	6	1	6	2	0	24
Mar-18	12	0	2	3	4	1	3	6	2	33
Apr-18	0	1	0	0	2	0	8	1	0	12
May-18	4	3	3	1	6	1	4	5	4	31
Jun-18	3	1	2	2	8	1	5	1	3	26
Jul-18	2	0	0	0	1	0	2	3	2	10
Aug-18	3	1	2	4	5	1	9	7	2	34
Sep-18	2	0	0	0	3	1	0	1	0	7
Total	178	23	72	70	190	24	134	83	64	838

Figure A1-3
Number of Unique Digital Ads (Web banners/email/SMS) in Canada
(Jan. 2016 – Sept. 2018)
(Does not include occurrences)

	Bell	EastLink	Fido	Freedom/ WIND	Public Mobile	Rogers/ Chatr	Sasktel	Telus/ Koodo	Vidéotron	Virgin	Total
Jan-16	0	0	1	1	0	0	0	16	0	0	18
Feb-16	3	0	3	2	0	3	0	4	2	0	17
Mar-16	4	0	2	0	0	0	0	10	0	2	18
Apr-16	3	0	1	0	0	0	0	11	0	0	15
May-16	5	0	7	0	0	1	0	3	1	0	17
Jun-16	1	0	0	0	1	2	0	10	0	2	16
Jul-16	1	0	2	0	0	1	0	2	1	0	7
Aug-16	3	0	3	0	1	6	0	8	1	0	22
Sep-16	6	0	1	2	0	5	0	7	3	3	27
Oct-16	0	0	5	0	4	5	0	1	0	1	16
Nov-16	8	0	0	2	0	5	0	8	2	1	26
Dec-16	2	0	7	0	0	2	0	17	1	3	32
Jan-17	4	4	2	0	0	8	0	4	1	0	23
Feb-17	3	0	2	2	0	6	0	0	1	0	14
Mar-17	3	5	4	0	0	10	1	16	0	2	41
Apr-17	5	5	0	1	2	5	0	6	1	0	25
May-17	11	5	2	2	0	7	0	10	0	1	38
Jun-17	18	8	3	2	3	11	0	21	1	2	69
Jul-17	11	3	11	1	3	7	0	14	1	0	51
Aug-17	18	9	20	1	2	22	5	23	2	9	111
Sep-17	11	5	0	2	0	4	1	15	1	1	40
Oct-17	11	5	1	2	0	17	2	19	9	1	67
Nov-17	9	3	4	4	2	3	1	25	14	1	66
Dec-17	6	1	0	1	1	1	1	7	3	2	23
Jan-18	7	1	0	2	1	4	0	16	4	0	35
Feb-18	9	7	3	2	0	8	0	16	9	2	56
Mar-18	12	4	2	5	0	4	0	19	13	2	61
Apr-18	10	1	2	3	0	4	0	6	6	1	33
May-18	2	2	1	2	3	6	0	10	6	1	33
Jun-18	7	0	8	4	2	5	1	12	5	3	47
Jul-18	1	0	4	1	0	5	1	11	2	0	25
Aug-18	1	3	2	6	6	5	1	12	4	1	41
Sep-18	2	4	3	7	3	7	0	19	8	1	54
Total	197	75	106	57	34	179	14	378	102	42	1184

These figures show that over the last approximately two and a half years there were thousands of unique advertisements concerning wireless services in Canada, consistent with vigorous rivalry in the marketplace.

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