

**SUBMISSION OF SHAW COMMUNICATIONS INC.
TO THE HOUSE OF COMMONS STANDING COMMITTEE
ON INDUSTRY, SCIENCE AND TECHNOLOGY**

Study on the Canadian Response to the COVID-19 Pandemic

Introduction

1. Shaw Communications Inc. (**Shaw**) appreciates this opportunity to contribute to the important work of the House of Commons Standing Committee on Industry, Science and Technology (the **Committee**) and to assist the Committee with its *Study on the Canadian Response to the COVID-19 Pandemic*.
2. Although the full effects are not yet measurable, it is undeniable that every sector of our economy (including agriculture, energy, services, manufacturing, finance and technology) has been impacted by COVID-19. It is also clear that the impacts across Canada would have been far more severe and long-lasting in the absence of powerful and reliable broadband networks. Broadband connectivity has provided a vital communications backbone, facilitated telework and led to an e-commerce boom. The power and resilience of broadband infrastructure are the direct result of massive investment by Canada's network builders. For these reasons, it is critical to ensure that the regulatory and policy frameworks support the continued strength, reliability and expansion of broadband networks.
3. From the outset of the pandemic, Shaw's priorities have been to protect the health and safety of our customers and employees, while keeping Canadians connected. Our 10,000 employees have worked tirelessly to manage our wireline and wireless networks and to ensure uninterrupted service during a period of unprecedented demand.¹ This brief will focus on the following topics: (i) the impressive performance of Shaw's broadband internet network throughout the COVID-19 crisis; (ii) how Canada's networks will drive Canada's economic recovery; and (iii) certain regulatory challenges that threaten to undermine future network investment.

Shaw's Network Performance During the COVID-19 Crisis

4. The COVID-19 crisis resulted in a sudden, drastic surge in demand across Shaw's broadband network at a time when reliable and high-quality connectivity has never been more important. Since containment measures were put in place, Shaw has seen a significant increase in network traffic (up by as much as 50% and the daily peak usage window has stretched from three hours to almost 12 hours a day). Video conferencing alone has seen a staggering increase of 160% on our Fibre+ network.

¹ Please see Appendix A to this submission for a summary of the initiatives Shaw has undertaken to assist Canadians during the pandemic.

5. The stunning increase in network traffic and usage comes from the multitude of ways that Canadians have relied on their home internet services while COVID-19 emergency measures have been in place. Canadians are using their home internet to attend virtual classes, access telehealth services and government support programs, shop online, connect with family and friends, and stay informed and entertained. The most significant source of traffic growth is from the large number of Canadians who have transitioned to working from home. In one week in March, Statistics Canada found that almost five million more Canadians than usual were working from home.² These workers have used their home internet connection to attend meetings and collaborate with colleagues through high-bandwidth video conferencing platforms. These experiences have provided “a vivid example of the value of robust digital infrastructure that is reliable and cost-effective day-to-day, and able to handle surges in demand under stress.”³
6. According to research published by Abacus Data, 90% of Canadians say their home internet service has handled the increased demand well during the pandemic.⁴ Indeed, many Canadian businesses have been able to stay open, despite the closure of their offices and retail locations, because of the high-quality connectivity provided by Canada’s telecommunication companies that own, operate and build Canada’s broadband networks (the **Network Builders**).
7. The resilience of Canada’s wireline and wireless networks during this national crisis is a tremendous achievement that is only possible because of the extensive network investments made by Canada’s Network Builders. Over the last several years, Shaw alone has invested billions of dollars in our network and services in order to expand the geography of our fibre footprint and upgrade the network to deliver faster speeds and increased bandwidth. These investments also allowed Shaw to launch our Fibre+ Gig internet service in May 2020, which offers download speeds of 1 gigabit per second – across 99% of our footprint.⁵ As a result, homes in even the smallest communities that we serve have access to the same 1 Gig speeds available in cities like Vancouver and Calgary.
8. As explained by the C.D. Howe Institute, the “acceleration in digital activity and heightened virtual connectivity” worked:

Because generations of technological progress and physical investment now deliver unprecedented amounts of data across wires and airwaves close to the speed of light.

² Statistics Canada, *Canadian Perspectives Survey Series 1: COVID-19 and working from home*, 2020, April 17, 2020. Available: <https://www150.statcan.gc.ca/n1/daily-quotidien/200417/dq200417a-eng.htm>

³ William Robson and Grant Bishop, C.D. Howe Institute, *Coronavirus Crisis Shows Value of Robust Digital Infrastructure*, March 24, 2020. Available: <https://www.cdhowe.org/intelligence-memos/robson-bishop-%E2%80%93-coronavirus-crisis-shows-value-robust-digital-infrastructure>

⁴ Abacus Data, *How a home internet connection is helping Canadians get through the COVID-19 pandemic*, April 24, 2020; available: <https://abacusdata.ca/home-internet-connection-canadians-pandemic-online-streaming/>

⁵ Shaw Press Release, “Shaw launches Fibre+ Gig: The largest deployment of gigabit speeds for residential internet customers in Western Canada,” May 27, 2020. Available: <https://newsroom.shaw.ca/materialDetail.aspx?MaterialID=6442452368>.

Lower quality networks would have buckled under the increased demand.³

How Canada's Networks will Drive Canada's Economic Recovery

9. The essential role of Network Builders has never been clearer. The COVID-19 crisis has revealed both the importance of connectivity to Canadians and the benefits of billions of dollars of network investment. As recently explained by the Canadian Wireless Telecommunications Association (the **CWTA**):

Years of investing in network infrastructure and operations have resulted in networks that are incredibly resilient in the face of intensified network traffic and altered usage patterns. Network operators are monitoring their networks 24/7, adding capacity as needed, and are working closely with governments, hospitals, and other essential services to ensure they receive the critical support they require.⁶

10. According to the Organisation for Economic Co-operation and Development (the **OECD**), Canada's telecom operators rank 1st in the G7 and 4th among OECD nations in investment as a percentage of revenue.⁷ Despite the challenges of our geography, Canada routinely ranks among the top 20 countries on global broadband network speed indices⁸ and we have consistently ranked among the top three countries in internet affordability.⁹
11. Affordable access to broadband connectivity provided by Shaw and other Network Builders has significantly mitigated the devastating impact of the crisis on the Canadian economy by allowing many sectors to modify their operations and remain in business while physical distancing measures have been in place. Although the economy is beginning to re-open, some degree of preventative measures are expected to remain in place for the foreseeable future. The reliability of network performance is, therefore, essential to mitigating the negative effects of social and economic volatility during a potentially slow and bumpy recovery. Ultimately, connectivity will provide the engine of the country's economic recovery when the pandemic ends.
12. The speed and degree to which Canada's economy comes back to life will depend in large part on the continued strength and competitiveness of Canada's telecommunications networks. No business – regardless of its size or nature – can build its products, sell its services, hire its employees, engage with customers, collaborate internally, or market itself without access to high-quality broadband networks. Like a concrete foundation, the stronger and more stable our networks, the more that can be built on top of them.

⁶ CWTA, *The Telecom Industry Response to COVID-19*, April 20, 2020. Available: <https://www.cwta.ca/blog/2020/04/20/the-telecom-industry-responds-to-covid-19/>

⁷ OECD, *Digital Economy Outlook 2017*, October 11, 2017. Available: <https://www.oecd.org/internet/oecd-digital-economy-outlook-2017-9789264276284-en.htm>

⁸ Speedtest Global Index, *Global Speeds May 2020*. Available: <https://www.speedtest.net/global-index>

⁹ The Economist Intelligence Unit, *The Inclusive Internet Index 2020*. Available: <https://theinclusiveinternet.eiu.com/explore/countries/CA/performance/indicators/affordability>

13. Fast and high-quality broadband networks will also support growth through innovation. Many businesses might permanently adopt some of the online tools and practices that they have implemented over the past few months. While a significant number of Canadians will return to their offices after the pandemic ends, many will work from home more regularly or permanently. Several Canadian companies are already blazing this trail, from established large corporations to small start-ups. Ottawa-based Shopify recently announced that it will now be “digital by default.”¹⁰ Similarly, Toronto-based start-up Dot Health now plans to transition to a permanent work from home model.¹¹
14. Ultimately, our collective responses to the crisis could lead to a wave of innovative start-ups in every industry, unlock productivity potential and transform the way we work. Canadian and non-Canadian corporations hiring remote employees will concentrate their efforts in jurisdictions that are well-known for high-quality connectivity. Canada’s success in each of these initiatives will depend on access to reliable and fast broadband to support connectivity, video conferencing and other software demands. Without robust networks, Canadians will be unable to participate in the digital marketplace and Canada’s economic strength, both throughout the recovery and beyond, will suffer. As explained by the Competition Bureau:
- Canada’s highly skilled workforce, strong infrastructure, and social stability position it well for a swift economic recovery. Governments can help aid this process by reinforcing a strong culture of competition, where businesses are driven to grow and innovate, and the Canadian economy can fully embrace its competitive advantage.¹²
15. Any failure of Canada’s policymakers to fully appreciate the critical importance of facilities-based telecommunications investment and competition will put at risk our country’s future economic growth. In order to embrace Canada’s competitive advantage in the COVID-19 economic recovery, Network Builders like Shaw must be encouraged to do what they do best: build the networks that will continue to advance broadband performance across the country and maximize Canadians’ participation and competitiveness in the digital economy. This requires a stable and predictable regulatory environment that enables long-term capital investment and promotes sustainable competition and innovation. Clear policy support for facilities-based investment and competition is especially important as we plan for a post-COVID-19 reality and the era of Fifth Generation (**5G**) connectivity. Canada cannot afford to be left behind.

¹⁰ CBC News, *Shopify permanently moves to work-from-home model*, May 21, 2020; available: <https://www.cbc.ca/news/canada/ottawa/shopify-pandemic-staff-ottawa-1.5578614>

¹¹ CTV News, *Will the COVID-19 pandemic lead to a permanent revolution in working from home?*, May 25, 2020; available: <https://www.ctvnews.ca/business/will-the-covid-19-pandemic-lead-to-a-permanent-revolution-in-working-from-home-1.4954518>

¹² Competition Bureau, *Turning the tide: the role of competitive markets in Canada’s economic recovery*, May 25, 2020; available: <https://www.ourcommons.ca/Content/Committee/431/INDU/Brief/BR10773634/br-external/CompetitionBureau-e.pdf>

The Challenges with Respect to Future Network Investment

16. Shaw is asking the Committee to recommend a policy and regulatory framework that enables and incents investment by Network Builders so that Canada continues to have the world-leading networks that have supported our social and economic well-being during the pandemic and will drive Canada's economic recovery.
17. The critical role of Network Builders like Shaw cannot be overstated – or taken for granted. Canada's wireline and wireless networks have continued to deliver world-class speed and reliability in a period of unmatched disruption and extraordinary demand. This was only possible because of billions of dollars of investment in continuous, capital intensive, incremental network and technology upgrades that have increased the speed and capacity of our networks. If the COVID-19 outbreak had occurred a few years ago, Canada's networks would not have been able to accommodate the increase in demand, and in turn, fewer Canadian businesses would have been able to move their operations online and fewer Canadians would have maintained their employment through work from home arrangements.
18. Despite the accomplishments of Canada's Network Builders, the robustness and reliability of our networks depends on significant additional investment. In this regard, an August 2019 decision¹³ (the "**Wholesale Rate Decision**") by the Canadian Radio-television and Telecommunications Commission (the **CRTC**) threatens to undermine Network Builders' ability to maintain the level of investment that is critical to Canada's future economic prosperity.
19. In summary, the CRTC requires that Network Builders provide wholesale high-speed internet access services to third parties, who resell internet to consumers using the infrastructure owned by Network Builders (these third parties are frequently referred to as "**resellers**"). In the Wholesale Rate Decision, the CRTC did two fundamental things. First, they dramatically reduced the rates that Network Builders can charge resellers for internet services. Second, the CRTC essentially created a single flat wholesale rate for all broadband speeds, which effectively eliminates tiered pricing. Tiered pricing has been the cornerstone of the retail internet market where a range of speeds are made available to provide affordable options for basic connections and next-generation speeds at premium prices. By providing resellers with the ability to price higher speed tiers at the same price as lower speed tiers, the CRTC will essentially destroy the economic foundation of internet expansion, innovation and consumer choice.
20. The following is a more detailed explanation of the CRTC's Wholesale Rate Decision:
 - a. The CRTC sets the wholesale rates that Network Builders can charge resellers under this regime, which include two separate components: an "access rate" and a "capacity rate." The monthly access rates are intended to capture the costs

¹³ Telecom Order CRTC 2019-288 – *Follow-up to Telecom Orders 2016-396 and 2016-448 – Final Rates for Aggregated Wholesale High-speed Access Services* (August 15, 2019).

associated with the end-user's applicable internet service speed, while the capacity rate relates to traffic. The Commission has determined that the rates for wholesale high-speed access services are required to be based on the "cost incurred to provide the services, plus an appropriate markup, without exception."¹⁴

- b. In the Wholesale Rate Decision, the CRTC drastically reduced the already low wholesale rates payable by resellers to Network Builders. In the case of Shaw, despite supporting evidence to the contrary, the CRTC lowered Shaw's capacity rates by 15% and our access rates by as much as 77%, which is well-below the cost to deliver the services.
 - c. Further, the Wholesale Rate Decision imposes flat wholesale access rates across all speed tiers, meaning that resellers pay the same rate regardless of speed, altogether denying the recovery of costs associated with provisioning faster speeds. Specifically:
 - the monthly access rate for 0-10 megabits per second (Mbps) is \$11.47; and
 - the monthly access rate for Shaw's mandated speeds up to 750 Mbps is also \$11.47 (which was significantly and unexpectedly reduced from the already low interim rate of \$50.84 – a rate initially based on 300 Mbps).
21. Under the Wholesale Rate Decision, for other Network Builders, the access rate for 5 Mbps internet service is the same as 1000 Mbps – speeds that are 200 times faster and only made possible because of years of continuous upgrades and investments of billions of dollars.
22. The Wholesale Rate Decision is currently the subject of an appeal before the Federal Court of Appeal (as well as a stay pending the Court's disposition), a CRTC Review and Vary application, and a Petition to the Federal Cabinet. If the Wholesale Rate Decision is allowed to stand, it will materially distort competition and fundamentally destroy the economics of our internet business. Network Builders like Shaw will be required to provide resellers with access to our network at rates that are drastically below our costs, reducing the available funding for the continual upgrades that are necessary to support demand for ever-increasing speeds, increased capacity, and innovative services. The consequence will be to dramatically reduce Network Builders' investments in our country's digital infrastructure, which will ultimately harm Canadians' social and economic well-being.
23. TD Securities estimates that if the Wholesale Rate Decision comes into effect, Canada's six largest telecommunications companies will reduce their network investments by \$1.68

¹⁴ Telecom Decision CRTC 2013-36, para. 19. Notably, the wholesale access rates that resellers pay to the cable carriers are based on an outdated costing methodology known as Phase II costing, which is currently under review by the CRTC. The costing process is intended to produce a set of wholesale access rates that fairly compensate the cable carrier for access to its network and preserve the cable carrier's incentive to invest in network upgrades and expansion.

billion annually – slowing vital upgrades and expansion needed for future demand.¹⁵ In fact, had these rates been introduced five years ago, Shaw and other Network Builders would not have been in a position to manage the current extraordinary demands being placed on our networks. For Shaw’s part, we have made continuous incremental investments that have unlocked significant new network capacity; this work included activating DOCSIS 3.1 technology and undertaking mid-split spectrum expansion across much of our network.

24. It is important to note that resellers, on the other hand, do not build networks, nor do they meaningfully contribute to the improvement of existing networks. Between 2013 and 2018, resellers accounted for only approximately 0.4% of total investment in wireline plants and equipment.¹⁶
25. The below-cost rates will disproportionately impact rural, remote, and Indigenous communities where access to high speed internet services is lacking. In B.C. alone, Shaw provides over 100 communities with a population of less than 2,000 people with access to our fastest speeds offered in major urban centres, including our new 1 Gig service. Furthermore, Shaw recently brought speeds of 50 Mbps – the CRTC’s Universal Service Objective¹⁷ – to Flin Flon, Manitoba, a community that was previously without any high-speed internet service. Because of small populations and long distances between communities, the business case for building in many rural regions is challenging. Unfortunately, if the Wholesale Rate Decision is implemented, Shaw’s ability to continue expanding the reach and resilience of our footprint to connect underserved communities will be fundamentally undermined. The C.D. Howe Institute explains that:

... regulators must not underestimate the risk that mandated resale, whether for wireline or wireless networks, poses to investment in future technologies: “[resale] impair[s] incentives for investment and innovation in the long run” and ignores the reality that “a facilities-based provider considering deploying next generation infrastructure will reduce future investments accordingly.”¹⁸
26. A report by BCG’s Centre for Canada’s Future expressed these same concerns, noting that international experience demonstrates that the CRTC’s reduction of mandated wireline wholesale rates risks several negative and unintended ramifications over the medium to long term:

¹⁵ TD Securities Inc, *Industry Insights, We see Good Odds of the CRTC Decision Being Revised/Overtuned*, September 4, 2019.

¹⁶ CRTC’s *Communications Monitoring Report 2019* – Telecommunications Overview, Table 8.10 – Telecommunications investments made in plant and equipment, by type of provider of telecommunications service (\$ billion), 2013-2018.

¹⁷ Telecom Regulatory Policy CRTC 2016-496.

¹⁸ Grant Bishop, C.D. Howe Institute, *Boon or Bane? The Mandated Broadband and Wireless Access Debate*, 6 February 2020. Available: <https://www.cdhowe.org/intelligence-memos/grant-bishop-%E2%80%93-boon-or-bane-mandated-broadband-and-wireless-access-debate>

Citizens may end up with slower and less certain access to world-class connectivity, especially in digital-divide areas where business cases will become even less attractive. Slow adoption of Industry 4.0 would harm business competitiveness. And governments would be affected by slower long-term economic growth, increased demands on infrastructure budgets and counterproductive impacts on their innovation policies.¹⁹

27. While the Wholesale Rate Decision will materially reduce investment by Canada's Network Builders, other countries will continue increasing their digital investments. As a result, Canada will fall behind, while other countries will gain access to faster, more resilient networks and the potential that they unlock, including new jobs, massive increases in productivity, and increased GDP, along with greater social and economic well-being of their citizens. Poor quality networks and globally uncompetitive speeds are not what Canadians and Canada's businesses need today or in the post-COVID-19 era.
28. Finally, it is important to understand that resellers were already thriving before the Wholesale Rate Decision. Between 2014-2018, their residential internet subscriptions increased from approximately 794,000 to 1,179,000.²⁰ Only a few days before the Wholesale Rate Decision, the Competition Bureau concluded that the existing wholesale regime was already "working to deliver increased choice and competition to consumers. A diversity of competitors, both wholesale- and facilities-based, compete daily to win customers and provide Canadians with access to world-class broadband networks." The Bureau also discussed the challenge of "[b]alancing today's marketplace results with the longer-term need to maintain the incentive for continued investment in Canada's communications networks."²¹
29. As Shaw and other Network Builders explained in our Petition to Cabinet, there is a critical need to restore balance to the CRTC's wholesale high-speed access regulatory framework, in order to promote access to high-speed broadband services by all Canadians and Canada's place at the leading edge of the digital economy. The pandemic creates even greater urgency for these policy objectives – and a proper balance – to be achieved. Failure to do so will undermine a full and expeditious economic recovery, which will only be achieved if Canadians, businesses across the country, and government, can continue to leverage networks that are among the strongest in the world.
30. Therefore, Shaw is urging the Committee to recommend a reconsideration of the Wholesale Rate Decision, consistent with the relief requested in our Petition to Cabinet. To be clear, we are not asking Cabinet to undertake a rate-setting process or to eliminate the wholesale

¹⁹ BCG Centre for Canada's Future, "Future-proofing Canada's digital infrastructure to unlock benefits for all" (Dec 2019), page 18, online: https://media-publications.bcg.com/flash/dotbcg_other/CCF%20Digital%20Infrastructure-%20In%20the%20Balance.pdf

²⁰ CRTC's *Communications Monitoring Report 2019* – Figure 9.1 – Residential Internet service subscriptions, by type of service provider (thousands).

²¹ Competition Bureau of Canada, "Delivering Choice: A Study of Competition in Canada's Broadband Industry" (7 Aug 2019), p. 58.

access regime. We are simply asking Cabinet to direct the CRTC to reconsider the rates by balancing the Government's policy objectives, including:

- supporting innovation and ongoing investment in developing and deploying world-leading broadband technologies that provide the foundation for Canada's digital future, economic growth and international competitiveness;
- providing all Canadians, including those in rural, remote and Indigenous Communities, with affordable access to reliable, high quality and next generation broadband technologies to enable their full participation in the digital economy; and
- allowing Network Builders to recover their actual costs and realize a reasonable return on their massive investments to ensure that facilities-based providers can continue to build, upgrade and expand networks in support of our economic growth and recovery.

Conclusion

31. The COVID-19 crisis has revealed that connectivity is vital to the health of Canada's economy. Shaw is optimistic that our economic future can be very bright – but only if Canada's Network Builders can do what they do best. In particular, the policy framework must be focused on encouraging continued investment in network infrastructure and sustainable competition. This will allow Canada's Network Builders to continue to invest in and expand our networks, which will in turn allow Canadian businesses across every sector to re-open, unlock new revenue streams, innovate and enhance their productivity. For the reasons discussed in this brief, Shaw strongly submits that it would be appropriate for the Committee to recommend a reconsideration of the CRTC's Wholesale Rate Decision with a more appropriate balance of the complementary objectives of:

- facilities-based investment, innovation, economic growth, international competitiveness; and,
- affordable access (including in rural, remote and Indigenous communities) to reliable, high quality and next generation internet service that also allows network-builders to recover their costs and realize a reasonable return on their massive investments.

32. Canada's communications networks are not just the core of our digital infrastructure, they are the backbone of our social and economic well-being and, with the support of Canada's regulatory and policy framework, they will drive our economic recovery. The reconsideration of the Wholesale Rate Decision in a manner that prioritizes the above policy objectives is a crucial step toward ensuring continued long-term investment in – and expansion of – Canada's future digital infrastructure, so that everyone in this country can enjoy high-speed internet access at reasonable rates, including residents of rural, remote and Indigenous communities.

APPENDIX

Shaw immediately recognized that many Canadians were going to face challenges when governments across the country closed non-essential businesses and asked Canadians to stay home. In order to assist our customers during this time, Shaw has taken several steps to ensure that Canadians' connectivity and data needs continue to be met, including the following:

- Shaw has opened up access to our Shaw Go WiFi network, Canada's largest WiFi network, providing all Canadians in our footprint with free, easy-to-access connectivity at over 100,000 WiFi hot-spots.
- Shaw is providing two months of free internet service to the thousands of Shaw customers currently signed up to the Government of Canada's "Connecting Families" initiative.
- We are giving 400,000 Freedom Mobile customers with plans of 3GB of data or less (including those with no data) an extra 2GB for free.
- Shaw does not have data caps on our internet plans and we do not charge overages fees to our wireless customers.
- In recognition of the financial difficulty that Canadians are facing due to COVID-19 and the recent oil market collapse, we are working with individual customers as well as small and medium businesses to offer flexible payment options.
- To ensure that new and existing customers can access Shaw services while maintaining physical distancing, Shaw is providing safe, easy, contactless technician support through our industry-leading digital options, including self-serve and self-install (delivering equipment to our customers' doors without any tech-install requirements).
- To keep Canadians informed and entertained while they remain at home, Shaw has given Shaw Cable and Shaw Direct customers access to several TV channels at no additional cost, including CBC News Channel, CTV News Channel, CP24, LCN and RDI (subject to availability) and Family, Family JR, CHRGD and Treehouse (for homes with children).
- To support at-home learning and entertainment while schools remain closed, Shaw has partnered with EVERFI, a leader in digital learning, to provide free, self-guided virtual education for students from K-12. This free program is available to all Canadian families and offers a catalogue of over 20 self-directed research-backed digital courses in science, math, financial education, mental health, digital wellness and more.

***** END OF DOCUMENT *****