

CANADA GAZETTE NOTICE NO. SLPB-006-21

**CONSULTATION
ON
A POLICY AND LICENSING FRAMEWORK
FOR
SPECTRUM IN THE 3800 MHZ BAND**

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**REPLY COMMENTS
OF
BELL MOBILITY INC.**

21 MARCH 2022

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1.0 EXECUTIVE SUMMARY

1. These reply comments are submitted in accordance with the procedure set out by Innovation, Science and Economic Development Canada (the Department or ISED) in Notice No. SLPB-006-21, *Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band* (the Consultation).

1.1 Coexistence with Aeronautical Radionavigation Systems

2. A number of commenters¹ expressed their concerns over the proposal to extend the interference mitigation measures to the 3800 MHz spectrum band and highlighted the adverse impacts the overly restrictive measures will have on coverage and quality.² Similar to the majority of mobile service providers, we oppose the interference mitigation measures mandated in SRSP-520 for both the 3500 MHz and 3800 MHz spectrum bands. These measures are unnecessary. 5G deployments in the 3400-3800 MHz spectrum band in Europe and the 3700-4100 MHz spectrum band in Japan have been operational for a number of years without any reports of interference with radio altimeters. The proposed measures, which have been mandated on an interim basis in the 3500 MHz spectrum band, are overly restrictive and if not removed will create unnecessary hurdles to realizing the full potential of 5G.

3. We encourage the Department to complete all relevant testing on radio altimeter interference as quickly as possible and put in place directives for the aviation industry to replace obsolete altimeters on aircrafts (if required) before 3800 MHz licences are available for commercial mobile use. The cost to upgrade obsolete radio altimeters should be borne by the aviation industry, however, ISED should be prepared to subsidize the costs through the proceeds of the 3800 MHz auction if required to meet the deadline for using 3800 MHz spectrum licences.

¹ Iristel Comments, paragraph 8; MIG Comments, page 1; Rogers Comments, paragraph 52; Sogetel and Xplornet Comments; paragraph 54.

² Iristel Comments, paragraph 20 and CWTA Comments, paragraphs 21 and 22.

1.2 Spectrum Set-asides and Spectrum Caps

4. A number of commenters³ supported the implementation of spectrum set-asides and/or spectrum caps. There is an abundance of compelling evidence that today's wireless marketplace is highly competitive, and as a result, there is no need to implement spectrum set-asides and/or spectrum caps. All wireless service providers compete vigorously to offer the highest speeds, widest and most reliable coverage, best customer service, latest devices, and most innovative product and service offerings.

5. The implementation of what ISED calls "pro-competitive measures" in Canadian spectrum auctions has proven that they distort the auction process to the significant benefit of set-aside spectrum recipients and the detriment of Canadian taxpayers. The continued use of pro-competitive measures has resulted in Canada having the highest spectrum costs in the world and this practice should be discontinued. Therefore, we do not support the use of any pro-competitive measures in the 3800 MHz spectrum auction.

6. An efficient allocation of spectrum cannot be achieved if spectrum set-asides are implemented as part of an auction process. Set-asides introduce an asymmetry – wherein the bids of set-aside-eligible bidders can affect the prices of set-aside-ineligible bidders, but the reverse does not hold – which makes it probable that set-aside-eligible bidders will raise their rivals' costs, thereby distorting prices in the 3800 MHz spectrum auction. When spectrum costs are driven up, consumers end up paying more. "Pro-competitive" measures that increase costs are incongruent with the Government's objective of facilitating lowering wireless prices.

7. If the Department decides to interfere with market forces, then it should use a spectrum cap. It is the least intrusive of the alternatives presented in the Consultation, is the most common practice internationally with respect to mid-band spectrum, allows multiple providers to obtain a

³ BC Tech Association Comments, page 1; Business Council of British Columbia Comments, page 2; Canadian Aquaculture Industry Alliance Comments, page 2; Canadian Federation of Agriculture Comments, page 2; Kootenay Rockies Tourism Comments, page 2; National Coalition of Chiefs Comments, page 1; Nisga'a Lisims Government Comments, page 2; Pearson Comments, page 3; Technation Comments, page 4; Tourism Industry Association of British Columbia Comments, page 2; Tourism Jasper Comments, page 2; Western Canada Wheat Growers Association Comments, page 2; Rogers Comments, paragraph 17; Telus Comments, paragraph 48; Cogeco Comments, paragraph 34; Comcentric Comments, paragraph 27; Videotron Comments, paragraph 48; Iristel Comments, paragraph 35; Sogetel Comments, paragraph 30; Eastlink Comments (Consultation questions), paragraph 7; Terrestar Comments, paragraph 23 and SaskTel Comments, paragraph 74.

significant amount of mid-band spectrum, and has the support of most commenters⁴. As a general principle, spectrum caps are less distortive than set-asides. A cross-band spectrum cap of 100 MHz would make available sufficient mid-band spectrum for four licensees to roll out fully-functional 5G services without introducing the risks of regulatory gaming that are associated with set-asides.

1.3 Rogers' Asymmetric Spectrum Cap Proposal

8. The proposal by Rogers to apply an asymmetric spectrum cap targeting us and Telus is a blatant attempt to convince the Department to impose an unprecedented new rule that would allow Rogers to secure more spectrum than either of its two largest competitors. Rogers' submission is inordinately self-serving and provides over 100 pages complaining about all other market participants and the Department. Contrary to Rogers' continuous use of the term "anti-competitive spectrum pooling", there is nothing anti-competitive about the network sharing arrangement between Bell and Telus. All subordinate spectrum licence applications were reviewed by the Department and approved by the Minister of Innovation, Science and Industry. In addition, there is, and was, nothing preventing Rogers from entering into similar arrangements – and they have done so on a significant basis.

9. Rogers' primary complaint is that due to the Department⁵ and the behavior of other market participants,⁶ they have been put at a competitive disadvantage relative to other National Mobile Service Providers (NMSPs) and to regional mobile service providers. This outlandish position is undermined by Rogers itself when it goes on to describe how the current market structure has led to excellent outcomes for Canadians.⁷ In addition, readily available evidence demonstrates that the current market structure has not prevented Rogers from offering 5G services or from providing increased value to Canadians.⁸

10. The current market structure and wireless policies have not prevented Rogers from acquiring spectrum. As ISED is well aware, Rogers not only has more spectrum than any other Canadian wireless carrier on an absolute basis, it has more spectrum per subscriber than either

⁴ BC Tech Association Comments, page 1; Business Council of British Columbia Comments, page 2; Canadian Aquaculture Industry Alliance Comments, page 2; Canadian Federation of Agriculture Comments, page 2; Kootenay Rockies Tourism Comments, page 2; National Coalition of Chiefs Comments, page 1; Nisga'a Lisims Government Comments, page 2; Pearson Comments, page 3; Technation Comments, page 4; Tourism Industry Association of British Columbia Comments, page 2; Tourism Jasper Comments, page 2; Western Canada Wheat Growers Association Comments, page 2 and Telus Comments, paragraph 48.

⁵ See for example Rogers Comments, paragraphs 24 and 135.

⁶ See for example Rogers Comments, paragraphs E2, 47, 94 and 138.

⁷ Rogers Comments, paragraphs 6 to 10.

⁸ Rogers Comments, paragraphs 6 and 14.

Bell or Telus, and Bell and Telus combined, even before the potential acquisition of Shaw's spectrum. If Rogers' proposal to implement network-based spectrum caps were adopted it would lead to an absurd situation where Bell and Telus, which serve approximately 18 million subscribers, would be limited to acquiring the same amount of spectrum as Rogers, which serves about 11 million subscribers.⁹

11. The argument made by Rogers for Multi-Operator Radio Access Network (MORAN) network sharing lacks merit and is a recommendation for a measure that reduces spectral efficiency.¹⁰ The evolution of technology has enabled service providers to share resources in novel ways to achieve higher efficiencies such as the use of cloud based network functions. The Department should pay no heed to Rogers' preference for MORAN network sharing arrangements. A wide range of network sharing arrangements should be encouraged as they offer different approaches to efficiency and other costs/benefits to the participants. Service providers should be allowed to determine which arrangements best meet their operational needs. Allowing all types of network sharing arrangements is consistent with Enabling Guideline (a) of the *SPFC* which states "market forces should be relied upon to the maximum extent feasible."¹¹

12. Rogers recommends restricting the permitted amount of spectrum licence subordinations through licence conditions.¹² Rogers proposes that operators should not be allowed to subordinate spectrum to each other if they hold more than 40% of the spectrum in the 3500 MHz and 3800 MHz spectrum bands. The 40% threshold ignores the fact that subordinating spectrum licences does not at all impact market concentration. It is clear that Rogers' proposal is designed to ensure that both Bell and Telus can only use as much spectrum as Rogers. Limiting spectrum use by banning certain subordination arrangements on an ex ante basis is simply a ploy to create a competitive advantage for Rogers.

13. Rogers further recommends that the existing 3500 MHz holdings of Bell and Telus should count towards a cross-band cap of 150 MHz while still allowing Rogers to acquire 150 MHz of spectrum. Rogers also proposes that if an intent to pool spectrum in 3500 MHz through subordinate spectrum licences was not disclosed, then subsequent pooling in 3800 MHz band should be prohibited for five years. This should simply be understood as a proposal by Rogers to disrupt the network arrangements of its two national competitors and restrict the amount of spectrum available to them.

⁹ See: https://www.cwta.ca/wp-content/uploads/2022/02/Sub-Stats-2021-Quarter-4-EN-Devices_Web.pdf.

¹⁰ Rogers Comments, paragraph 32.

¹¹ *Spectrum Policy Framework for Canada*, page 9.

¹² Rogers Comments, paragraphs 37 and 38.

14. Not only is Rogers proposing restrictions on how its competitors can use their spectrum, it is also proposing when they can use it. Rogers' proposal for a "no-head start" requirement has no clear benefit and may result in impairing the development of the Canadian wireless industry. Rogers' anti-competitive proposal makes it quite clear that Rogers is over-extended due to its proposed acquisition of Shaw and is using the Consultation to make recommendations which will hold back the entire industry – particularly its two national competitors – while it focuses business efforts and financial resources elsewhere. The accelerated clearing of Fixed Satellite Service (FSS) in the United States will create an opportunity for Canadian mobile service providers to deploy 3800 MHz spectrum earlier in some markets through voluntary agreements. This provides the opportunity to bring the benefits of 5G services quicker to Canadians. There can be no other reason for proposing a "no-head start" requirement than obtaining a competitive advantage for itself. Therefore, the Department should reject Rogers' "no-head start" proposal which is not to the benefit of Canadians.

15. Rogers' spectrum cap recommendations limit the amount of spectrum available to all other mobile service providers (both national and regional) so that Rogers can retain its longstanding position as the largest wireless provider in Canada with the largest spectrum holdings. Rogers' recommendations are designed to hinder market forces and particularly restrict access to spectrum for its largest competitors. Rules that prevent competition in the name of facilitating competition are counter-productive and inappropriate.

16. For all of the above reasons, Rogers' proposal to impose an asymmetric spectrum cap and a "no-head start" rule should be rejected.

1.4 Auction Structure – Format

17. Most commenters¹³ supported ISED's auction process format such as the use of the clock auction format, anonymous bidding and the use of generic licences in two separate categories with a 10% threshold to determine whether the 3700-3900 MHz blocks in a service area should be categorized as encumbered.¹⁴ We also generally support the Department's proposals related to the auction format. We do not support, however, the proposal to limit set-aside spectrum to

¹³ CanWISP Comments, paragraph 73; Cogeco Comments, paragraph 57; Comcentric Comments, paragraph 58; Telus Comments, paragraph 90; Videotron Comments, paragraph 95; Xplornet Comments, paragraph 95; Rogers Comments, paragraph 180 and British Columbia Broadband Association, page 4.

¹⁴ CanWISP Comments, paragraph 69; Comcentric Comments, paragraph 52; Eastlink Comments (Consultation questions), paragraph 17; Rogers Comments, paragraph 170; Videotron Comments, paragraph 90; SaskTel Comments, paragraph 89 and Xplornet Comments, paragraph 91.

the unencumbered category in the 43 service areas with encumbrances. Assigning set-aside spectrum to the middle of the combined 3500 MHz and 3800 MHz spectrum bands will create a situation where set-aside-eligible companies could block others' efforts to achieve spectrum contiguity, which would be inconsistent with the Department's view that "contiguous blocks of spectrum can be used more efficiently."¹⁵

1.5 Auction Structure – Assignment Rounds

18. The majority of commenters¹⁶ supported the Department's proposal to conduct a separate assignment round for each of the most populated service areas sequentially. We generally supported the Department's proposal, but we do not support the creation of assignment sessions for six areas at one time after the completion of the first eight assignment rounds. We recommend the use of separate assignment rounds for each service area (subject to the creation of assignment areas), and that the rounds proceed sequentially in descending order of population. It is critical that bidders do not end up with fragmented spectrum holdings. Extra time should be taken during the auction to get the assignment right the first time rather than spending months correcting errors by negotiating and transferring licences after the auction is over.

19. As with a number of other commenters,¹⁷ we support the Department's proposal to automatically assign contiguous spectrum to existing licensees who have the 3640-3650 MHz block starting at 3650 MHz in the 129 service areas where only unencumbered blocks are available. Multiple operators having contiguous spectrum is the optimal outcome of the licensing process and thus, the assignment process should be designed to support this result.

20. We believe that automatic contiguous spectrum assignment for existing licensees at 3640-3650 MHz will be the first step in creating contiguous spectrum for all licensees and will simplify the spectrum licence swap process which is designed to support the attainment of contiguous spectrum for all licensees. Rogers¹⁸ and Technation¹⁹ further suggest that the Department should facilitate spectrum contiguity through a chairing group. We are supportive of such a group and encourage all efforts to ensure spectrum contiguity in the combined 3500 MHz and 3800 MHz spectrum bands.

¹⁵ The Consultation, paragraph 111.

¹⁶ CanWISP Comments, paragraph 77; Comcentric Comments, paragraph 62; SaskTel Comments, paragraph 96; Videotron Comments, paragraph 103 and Telus Comments, paragraph 97.

¹⁷ Comcentric Comments, paragraph 64; Telus Comments, paragraph 98; Terrestar Comments paragraph 53; Sogetel Comments, paragraph 69; Iristel Comments, paragraph 59; Videotron Comments, paragraph 105 and SaskTel Comments, paragraph 97.

¹⁸ Rogers Comments, paragraph 228.

¹⁹ Technation Comments, page 4.

1.6 Auction Structure – Final Payments

21. A number of commenters such as Rogers,²⁰ CWTA,²¹ Cogeco²² and Xplornet²³ recommended that the Department delay licence fees until the licences are usable. As the CWTA states: "winners should not be required to make payment for licences until the spectrum band is cleared of FSS operations." We agree with this position and echo Rogers' comments that "payment terms for 3800 MHz spectrum should also align with the dates when the spectrum is usable...operators will not be able to obtain any meaningful return from deploying the spectrum before then."²⁴ It would be punitive for successful bidders to pay hundreds of millions of dollars for something they cannot use for several years. These are costs that would be borne today but would not contribute to the production of services and generation of revenue because the spectrum cannot be put to use. This results in an inefficient allocation of resources which could have been put to different uses such as network improvements, customer service enhancements and the development of new products and services.

1.7 Conditions of Licence (CoL)

22. There was wide support²⁵ for removing the asymmetric LTE-related deployment conditions. There is consensus in the industry that the LTE-related deployment conditions punish those who have made higher investments in LTE network deployments. Canada's national LTE networks provide coverage to virtually all Canadians. Moreover, it is contrary to ISED's policy as it discourages deployment rather than encourages it. If the Department's goal is the expansion of 5G coverage to rural areas, then we recommend that the Department reject the proposed LTE-related deployment requirement. If it feels that the proposed general deployment requirements are insufficient, then it could strengthen them as they are applied symmetrically to all licensees.

23. Telus recommended that the Department remove the research and development (R&D) CoL in its entirety.²⁶ We agree, and encourage the Department to eliminate the R&D spending condition, or at a minimum, eliminate or lower the revenue exemption threshold, lower the spending requirement and update the definition of R&D eligible expenditures. This CoL is

²⁰ Rogers Comments, paragraph 245.

²¹ CWTA Comments, paragraphs 35 to 37.

²² Cogeco Comments, paragraph 94.

²³ Xplornet Comments, paragraph 105.

²⁴ Rogers Comments, paragraph 245.

²⁵ Terrestar Comments, paragraph 65; Technation Comments, page 5; Sogetel Comments, paragraph 84; Rogers, Comments, paragraph 270; Telus Comments, paragraph 121; Eastlink Comments (Consultation questions), paragraph 23 and Comcentric Comments, paragraph 80.

²⁶ Telus Comments, paragraph 127.

unnecessary and out-of-step with today's modern wireless industry, and inappropriately imposes a regulatory disadvantage on a subset of licensees.

24. We also recommend the removal of the proposed mandatory roaming CoL, which is a redundant policy that encourages network arbitrage. Should the Department elect not to remove this CoL, it should be applied only to the benefit of non-NMSPs. Rogers, Telus and Bell are sophisticated businesses with multifaceted wholesale relationships spanning wireline and wireless telecommunications and broadcasting lines of business. Moreover, Rogers has the scale and access to capital required to invest in rural connectivity. What it lacks is commitment to do so. If Rogers is able to secure the capital necessary to fund its proposed \$26 billion acquisition of Shaw²⁷, then they can secure the necessary capital to invest in networks in rural and remote areas rather than relying on mandatory roaming as a substitute. Maintaining mandatory roaming confers an unwarranted competitive advantage on Rogers to the detriment of the other NMSPs. In consideration of these facts, there is no need for ISED to regulate the provision of wholesale roaming services among these companies. Market forces can be relied upon to address any competitive or market issues that may arise related to wholesale roaming.

25. Finally, the existing annual reporting CoL is overly burdensome on spectrum licence holders. We encourage the Department to initiate a Consultation in the near future with the aim of removing or reducing this requirement for all spectrum licences.

2.0 COEXISTENCE WITH AERONAUTICAL RADIONAVIGATION SYSTEMS

26. A number of commenters²⁸ expressed their concerns over the proposal to extend the interference mitigation measures to the 3800 MHz spectrum band and highlighted the adverse impacts the overly restrictive measures will have on coverage and quality.²⁹ Similar to the majority of mobile service providers, we oppose the interference mitigation measures mandated in SRSP-520 for both the 3500 MHz and 3800 MHz spectrum bands. These measures are unnecessary and as noted by Rogers: "Canada appears to be an outlier in adopting the broadest limitations, even though the Canadian 3500 MHz band has greater spectral separation than countries that have imposed (limited) constraints."³⁰ 5G deployments in the 3400-3800 MHz spectrum band in Europe and the 3700-4100 MHz spectrum band in Japan have been operational for a number of

²⁷ See: <https://about.rogers.com/news-ideas/rogers-and-shaw-to-come-together-in-26-billion-transaction-creating-new-jobs-and-investment-in-western-canada-and-accelerating-canadas-5g-rollout/>.

²⁸ Iristel Comments, paragraph 8; MIG Comments, page 1; Rogers Comments, paragraph 52; Sogetel and Xplornet Comments; paragraph 54.

²⁹ Iristel Comments, paragraph 20; and CWTA Comments, paragraphs 21 and 22.

³⁰ Rogers Comments, paragraph 61.

years without any reports of interference with radio altimeters. The proposed measures, which have been mandated on an interim basis in the 3500 MHz spectrum band, are overly restrictive and if not removed will create unnecessary hurdles to realizing the full potential of 5G. The exclusion and protection zones hinder the ability of licensees to deploy 5G in areas with high economic activity and along major highways that cross through these zones. The national restrictions on up-tilt and communication with drones also hinder the implementation of 5G use cases and stifle innovation.

27. Not only are there no reports of interference from 5G signals to radio altimeters as confirmed by a number of regulators but field trials have been conducted in France and Norway³¹, which conclude that no interference was observed from 5G signals to the aircrafts' altimeters. The Electronic Communications Committee (ECC) issued detailed reports of these trials along with testing parameters and reached the same conclusion every time: there is no interference from 5G signals to radio altimeters. In light of these developments and all of the other available evidence there is no reason to continue to mandate any mitigation measures for the 3500 MHz spectrum band. Therefore, we recommend that the Department lift these measures before the transition of 3500 MHz spectrum to flexible-use begins in June 2022. This gives the Department sufficient time to conduct its own field trials and reach the same conclusion as regulators around the world where 5G operates in the same frequency range as 3500 MHz.

28. We support the comments of the Mobile Interest Group (MIG) which state that the burden of resolving the perceived co-existence challenges with aeronautical radionavigation systems has been incorrectly placed with the mobile industry rather than the aviation industry³². We also support recommendations by leading Canadian service providers and global equipment suppliers³³ that interference mitigation measures in 3500 MHz spectrum band should be released by June 2022 and that a deadline should be set before the end of 2022 to identify any interference mitigation measures that will be implemented for 3800 MHz spectrum band. It is essential that bidders know the interference mitigation measures in advance of the 3800 MHz spectrum auction to assess the extent of impairment to the use of 3800 MHz spectrum. It was unfair of ISED to allow bidders to spend \$9 billion on 3500 MHz spectrum licences without transparently disclosing the restrictions on their use until after the conclusion of the auction.

³¹ See: https://cept.org/Documents/ecc-pt1/65941/ecc-pt1-21-184_norway-results-of-the-preliminary-test-of-compatibility-between-mfcn-operating-in-3400-3800-mhz-and-radio-altimeters-operating-in-4200-4400-mhz; https://cept.org/Documents/ecc-pt1/65970/ecc-pt1-21-192_france-radioaltimeter and https://cept.org/Documents/ecc-pt1/68092/ecc-pt1-22-048_france-preliminary-outcome-of-second-de-risking-trial-on-the-second-type-of-radioaltimeter-fitted-on-helicopter-of-the-french-gendarmerie

³² MIG Comments, page 3.

³³ MIG Comments, pages 5 and 6.

29. We encourage the Department to complete all relevant testing on radio altimeter interference as quickly as possible and put in place directives for the aviation industry to replace obsolete altimeters on aircrafts (if required) before 3800 MHz licences are available for commercial mobile use. The cost to upgrade obsolete radio altimeters should be borne by the aviation industry, however, ISED should be prepared to subsidize the costs through the proceeds of the 3800 MHz auction if required to meet the deadline for using 3800 MHz spectrum licences.

30. The comments of Air Canada³⁴ and Westjet³⁵ highlight the fact that radio altimeters are designed in accordance with standards that are 40 to 50 years old. It is evident that the issue – if there is one – is due to the adherence to dated standards which have not kept up with the developments in wireless technology. To the extent there is an interference issue – and to the best of our knowledge there are no reported cases of interference between 5G spectrum bands and radio altimeters³⁶ – it is clear that regulatory measures should address the cause of the problem (i.e., out-of-date radio altimeter standards) rather than restrict the wireless industry from realizing the benefits of mid-band spectrum.

31. The joint submission by the Aerospace Industry³⁷ and the joint submission by the Airline Industry³⁸ recommended that interference mitigation measures must be included at all airports including the Billy Bishop Airport in Toronto. However, the above-noted submissions do not provide any reasoning to back their proposal to extend the measures to all airports and runways. They state that the current interference mitigation measures are in place around airports that are authorized for automated landing and that have Category (CAT) II and III Instrument Landing Systems in operation. We understand that when flying a CAT I approach either a Decision Altitude or Decision Height may be used (the vertical minima used in a CAT I approach is measured by reference to a barometric altimeter) whereas when flying a CAT II or CAT III approach, special attention is given to the terrain in the runway undershoot area to enable a radio altimeter to be used.³⁹ It appears that the use of radio altimeters may not be required for CAT I approaches and therefore, extending interference mitigation measures to such airports is not required.

32. The impact of extending SRSP-520 measures to the Billy Bishop Airport will result in severe degradation of 5G services in downtown Toronto. Not only will a significant part of

³⁴ Air Canada Comments, page 1.

³⁵ WestJet Comments, page 1.

³⁶ Bell Comments, paragraph 23.

³⁷ Joint Aerospace Industry Comments, page 4.

³⁸ Joint Airline Industry Comments, page 2.

³⁹ See: <https://skybrary.aero/articles/precision-approach>.

downtown Toronto be excluded from 5G deployment, but managing power levels in protection zones within downtown Toronto will also compromise the quality of service. This impairment to the highest valued spectrum in the country should not be allowed in the 3800 MHz spectrum band as it would be at the detriment of Canadians. Implementing such measures in the 3500 MHz band should also not be considered, as there is no reason why such measures are needed at airports without automatic landing capabilities and it would also significantly impair the 3500 MHz spectrum bought by licensees at some of the highest spectrum prices in the world.

3.0 SPECTRUM SET-ASIDES AND SPECTRUM CAPS

33. A number of commenters⁴⁰ supported the implementation of spectrum set-asides and/or spectrum caps. However, there is an abundance of compelling evidence that today's wireless marketplace is highly competitive and as a result, there is no need to implement spectrum set-asides and/or spectrum caps. All wireless service providers compete vigorously to offer the highest speeds, widest and most reliable coverage, best customer service, latest devices, and most innovative product and service offerings.

34. Canada's facilities-based wireless providers have spent tens of billions of dollars on network deployment, spectrum auction payments and annual spectrum licence fees since the introduction of wireless services. As a result of this massive investment, Canada has world-class wireless networks that cover more than 99% of the Canadian population.⁴¹ Moreover, sustained competition from Canada's facilities-based wireless providers has resulted in a pattern of wireless price reductions. Over the past two years alone wireless prices have declined by almost 25% whereas overall inflation has increased by almost 7%.⁴²

35. Commenters proposed a wide range of pro-competitive measures. Generally the set-aside-eligible commenters supported Option 3,⁴³ or a variation of it with the set-aside proposed to be 100 MHz⁴⁴ along with a 100 MHz spectrum cap. There were also more extreme proposals

⁴⁰ BC Tech Association Comments, page 1; Business Council of British Columbia Comments, page 2; Canadian Aquaculture Industry Alliance Comments, page 2; Canadian Federation of Agriculture Comments, page 2; Kootenay Rockies Tourism Comments, page 2; National Coalition of Chiefs Comments, page 1; Nisga'a Lisims Government Comments, page 2; Pearson Comments, page 3; Technation Comments, page 4; Tourism Industry Association of British Columbia Comments, page 2; Tourism Jasper Comments, page 2; Western Canada Wheat Growers Association Comments, page 2; Rogers Comments, paragraph 17; Telus Comments, paragraph 48; Cogeco Comments, paragraph 34; Comcentric Comments, paragraph 27; Videotron Comments, paragraph 48; Iristel Comments, paragraph 35; Sogetel Comments, paragraph 30; Eastlink Comments (Consultation questions), paragraph 7; Terrestar Comments, paragraph 23 and SaskTel Comments, paragraph 74.

⁴¹ CRTC, *Communications Monitoring Report, 2020*, available at <https://crtc.gc.ca/eng/publications/reports/policymonitoring/2020/index.htm>, page 48.

⁴² Statistics Canada. Table 18-10-0004-01 Consumer Price Index, monthly, not seasonally adjusted.

⁴³ Cogeco Comments, paragraph 34.

⁴⁴ Videotron Comments, paragraph 48; Iristel Comments, paragraph 35; Sogetel Comments, paragraph 30; Eastlink Comments (Consultation questions), paragraph 7; and Terrestar Comments, paragraph 23.

such as a 160 MHz rural set-aside⁴⁵ and a 150 MHz spectrum cap along with proposed limits that simply prohibit competition.⁴⁶ The varying proposals are blatant attempts to distort market forces in order to create a favourable outcome for the commenter.

36. The implementation of what ISED calls "pro-competitive measures" in Canadian spectrum auctions has proven that they distort the auction process to the significant benefit of set-aside spectrum recipients and the detriment of Canadian taxpayers.⁴⁷ The continued use of pro-competitive measures has resulted in Canada having the highest spectrum costs in the world and this practice should be discontinued. Therefore, we do not support the use of any pro-competitive measures in the 3800 MHz spectrum auction.

37. The Department should support a market-based approach to spectrum allocation as indicated in Enabling Guidelines (a) and (d) of the *SPFC* which state "market forces should be relied upon to the maximum extent feasible," and "regulatory measures, where required, should be minimally intrusive, efficient and effective."⁴⁸ Market forces will ensure that those willing to put the spectrum to its best use will bid for and acquire it. A market-based approach to spectrum allocations will also ensure that the Government garners the highest possible value for the spectrum it administers on behalf of Canadians.

38. An efficient allocation of spectrum cannot be achieved if spectrum set-asides are implemented as part of an auction process. Set-asides introduce an asymmetry – wherein the bids of set-aside-eligible bidders can affect the prices of set-aside-ineligible bidders, but the reverse does not hold – which makes it probable that set-aside-eligible bidders will raise their rivals' costs, thereby distorting prices in the 3800 MHz spectrum auction. When spectrum costs are driven up, consumers end up paying more. "Pro-competitive" measures that increase costs are incongruent with the Government's objective of facilitating lowering wireless prices.

39. The Government should not construct spectrum auctions to maximize its proceeds when to do so is in direct conflict with the Department's stated policy objective to "maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource."⁴⁹ Canadian spectrum auctions, which have maximized proceeds, lead to higher costs

⁴⁵ CanWISP Comments, paragraph 34.

⁴⁶ Rogers Comments, paragraph 39.

⁴⁷ Bell Comments, paragraphs 41 to 45.

⁴⁸ *Spectrum Policy Framework for Canada*, June 2007, available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08776.html#s44>.

⁴⁹ *Spectrum Policy Framework for Canada - Spectrum management and telecommunications*.

to build networks and adversely affect wireless service prices thus conflicting with the Department's goal to facilitate lower wireless prices.⁵⁰ As noted by Rogers:

While all Canadian spectrum prices are relatively high, this falls disproportionately on the national operators (and thus the majority of wireless consumers) due to the unintended consequences of the historic use of set-asides in spectrum auctions. According to a recently published article in *Policy Options*, if Canada's spectrum policies resulted in costs for the national Canadian operators similar to those of average European carriers, it would have reduced the annual cost of spectrum per subscriber by \$55.⁵¹

40. Rather than maximizing proceeds from spectrum auctions, the Department should strive to maximize the benefits from the use of spectrum, which can only be achieved through efficient use of the spectrum and with lower costs to acquire that spectrum. The use of pro-competitive measures is leading to the opposite results.

41. The use of set-asides that limit the supply of spectrum and create an artificial scarcity run contrary to global best practices. A recent report prepared by the GSMA titled *The Mobile Economy 2022* states that "Governments and regulators should assign 5G spectrum to support their digital connectivity goals rather than as a means of maximising state revenues."⁵² Specifically, the GSMA recommends:

- make available sufficient 5G spectrum and avoid limiting the supply via set-asides;
- set modest reserve prices and annual fees to let the market determine spectrum prices;
- carefully consider auction design to avoid unnecessary risks for bidders (e.g., avoiding mismatched lot sizes, which create artificial scarcity);
- develop and publish a 5G spectrum roadmap with the input of stakeholders to help operators plan effectively around future availability; and
- consult stakeholders on the award rules and licence terms and conditions, and also take them into account when setting prices (onerous obligations reduce the value of spectrum).

42. It is important to ensure that spectrum allocation policies do not enable unnecessarily high spectrum prices which will impede Canada's ongoing economic recovery from the global COVID-19 pandemic. The pandemic has clearly shown the need to provide high quality connectivity to all Canadians and we have responded with our biggest ever network acceleration

⁵⁰ Telecom quarterly report: Price collection data - Mobile plans: More affordable wireless choices.

⁵¹ Rogers Comments, paragraph 45.

⁵² GSMA, *The Mobile Economy 2022*, page 44, available at <https://www.gsma.com/mobileeconomy/wp-content/uploads/2022/02/280222-The-Mobile-Economy-2022.pdf>.

plan which provides an additional investment of up to \$1.7 billion over two years.⁵³ High spectrum costs similar to the levels of the 3500 MHz spectrum auction will hamper the ability of companies like ourselves to continue the momentum of network investments.

43. NTT Limited (NTT) proposed to set-aside 3650-3700 MHz for General Authorized Access (GAA) licensing.⁵⁴ We oppose this proposal as it ignores the 3800 MHz band plan. 3650-3700 MHz is currently being used for Wireless Broadband Service (WBS) but is being displaced to ensure contiguity which will "provide long-term stability throughout the full 3450-3980 MHz range, allowing for more efficient use of the spectrum for future 5G applications and other use cases, including wireless Internet access."⁵⁵ We fully support the Department's decision to displace the WBS band to 3900-3980 MHz as it ensures contiguity for flexible-use 5G spectrum. As the Department stated, "if WBS remains in the 3650-3700 MHz band, coordination with flexible use systems in the adjacent bands could be challenging".

44. If a spectrum set-aside is used by ISED in the 3800 MHz spectrum auction – which we do not support – the criteria for eligibility should be refined to ensure that the set-aside-eligible entity is actively providing commercial wireless services to the general public within the relevant Tier 4 service area. Cogeco also proposed that set-aside eligibility be based on actively providing services in the relevant Tier 4 service area. In addition, Xplornet recommends the Department publish the list of parties that have qualified to bid on set-aside spectrum within each Tier 2 service area in advance of the auction to increase the level of transparency.⁵⁶ We agree with these comments that emphasized the need for a refined criteria and transparency. We recommend that the Department consider the comprehensive list of recommendations regarding the criteria for set-aside eligibility that we provided in our comments.⁵⁷

45. If the Department decides to interfere with market forces, then it should use a spectrum cap. It is the least intrusive of the alternatives presented in the Consultation, is the most common practice internationally with respect to mid-band spectrum, allows multiple providers to obtain a significant amount of mid-band spectrum, and has the support of most commenters⁵⁸.

⁵³ See <https://www.bce.ca/news-and-media/releases/show/bell-s-biggest-ever-network-acceleration-plan-gets-bigger-with-additional-investment-now-up-to-1-7-billion-over-the-next-2-years>.

⁵⁴ NTT Comments, page 3.

⁵⁵ 3800 MHz Decision, paragraph 136.

⁵⁶ Xplornet Comments, paragraph 85.

⁵⁷ Bell Comments, paragraph 53.

⁵⁸ BC Tech Association Comments, page 1; Business Council of British Columbia Comments, page 2; Canadian Aquaculture Industry Alliance Comments, page 2; Canadian Federation of Agriculture Comments, page 2; Kootenay Rockies Tourism Comments, page 2; National Coalition of Chiefs Comments, page 1; Nisga'a Lisims Government Comments, page 2; Pearson Comments, page 3; Technation Comments, page 4; Tourism Industry Association of British Columbia Comments, page 2; Tourism Jasper Comments, page 2; Western Canada Wheat Growers Association Comments, page 2 and Telus Comments, paragraph 48.

46. As a general principle, spectrum caps are less distortive than set-asides. A cross-band spectrum cap of 100 MHz would make available sufficient mid-band spectrum for four licensees to roll out fully-functional 5G services without introducing the risks of regulatory gaming that are associated with set-asides. A report prepared by Analysis Mason analyzed the regulatory measures with respect to mid-band spectrum auctions in OECD countries and found that 19 out of 22 countries used spectrum caps and the spectrum caps were set at an average level of 108 MHz.⁵⁹ The report also found that Canada is the only exception that uses spectrum set-asides. With a few exceptions the spectrum caps imposed have been in the range of 100-120 MHz. In cases where a high cap such as 150 MHz or 160 MHz was imposed, the outcome was three licensees with major holdings and not four.⁶⁰

47. While there was wide support for a spectrum cap among regional service providers, some also supported a spectrum set-aside of more than 50 MHz⁶¹. We do not support the implementation of both a spectrum set-aside and a spectrum cap. With the use of a 100 MHz spectrum cap, NMSPs would not be able to bid on a population weighted average of 83 MHz of spectrum across all service areas. The result is similar to an 80 MHz spectrum set-aside. Furthermore, the top 12 licence areas by population have 100 MHz of spectrum or more available for regional providers. Thus, there is no need for a spectrum set-aside in addition to a spectrum cap. The use of two pro-competitive measures together is unwarranted and would be counter to Enabling Guidelines (a) and (d) of the *SPFC* which state "market forces should be relied upon to the maximum extent feasible," and "regulatory measures, where required, should be minimally intrusive, efficient and effective."⁶²

48. The proposal from CanWISP to implement a 160 MHz spectrum cap in rural areas⁶³ with 80 MHz reserved for small telecommunications service providers, appears to ignore the impact of the newly extended WBS spectrum band and its contiguity with the 3800 MHz spectrum band. Setting aside 160 MHz of spectrum in rural areas will seriously impact the capability of NMSPs to

⁵⁹ Analysis Mason, *Pro-competitive measures and coverage obligations in mid-band auctions*, 11 February 2022, page 1, available at https://www.analysismason.com/contentassets/bc3c7101b916429d9c5f37d8e78f803a/analysys_mason_procompetitive_coverage_midband_feb2022.pdf.

⁶⁰ Analysis Mason, *Pro-competitive measures and coverage obligations in mid-band auctions*, 11 February 2022, Annex A and B, (Denmark, Austria, Slovenia, Ireland), available at https://www.analysismason.com/contentassets/bc3c7101b916429d9c5f37d8e78f803a/analysys_mason_procompetitive_coverage_midband_feb2022.pdf.

⁶¹ Cogeco Comments, paragraph 34; Comcentric Comments, paragraph 27; Videotron Comments, paragraph 48; Iristel Comments, paragraph 35; Sogetel Comments, paragraph 30; Eastlink Comments (Consultation questions), paragraph 7 and Terrestar Comments, paragraph 23.

⁶² *Spectrum Policy Framework for Canada*, page 9.

⁶³ CanWISP Comments, paragraph 34.

offer wireless services in rural and remote areas. We are actively using spectrum to offer wireless services in rural and remote areas. CanWISP's proposed spectrum set-aside will only leave 90 MHz of spectrum for NMSPs in rural areas leading to an inefficient allocation of spectrum and restricting the ability of NMSPs like ourselves to extend and enhance our wireless services in rural and remote areas. Certain NMSPs, such as Bell, have a long and successful history of improving rural connectivity and we have made significant efforts and investments⁶⁴ to meet the targets set in Canada's Connectivity Strategy.

3.1 Rogers' Asymmetric Spectrum Cap Proposal

49. The proposal by Rogers to apply an asymmetric spectrum cap targeting Bell and Telus is a blatant attempt to convince the Department to impose an unprecedented new rule that would allow Rogers to secure more spectrum than either of its two largest competitors. As explained below, Rogers' submission is internally inconsistent on several fronts. Moreover, Rogers does not need any assistance from ISED to acquire spectrum and remain competitive with the other network operators.

50. Rogers' submission is inordinately self-serving and provides over 100 pages complaining about all other market participants and the Department. Contrary to Rogers' continuous use of the term "anti-competitive spectrum pooling", there is nothing anti-competitive about the network sharing arrangement between Bell and Telus. All subordinate spectrum licence applications were reviewed by the Department and approved by the Minister of Innovation, Science and Industry. In addition, there is, and was, nothing preventing Rogers from entering into similar arrangements – and they have done so on a significant basis.

51. Rogers' primary complaint is that due to the Department⁶⁵ and the behavior of other market participants,⁶⁶ they have been put at a competitive disadvantage relative to other NMSPs and to regional mobile service providers. This outlandish position is undermined by Rogers itself when it goes on to describe how the current market structure has led to excellent outcomes for Canadians.⁶⁷ In addition, readily available evidence demonstrates that the current market structure has not prevented Rogers from offering 5G services or from providing increased value to Canadians. As Rogers states:

⁶⁴ See <https://www.bce.ca/news-and-media/releases/show/bell-expanding-rural-broadband-to-more-locations-with-faster-speeds-1>.

⁶⁵ See for example Rogers Comments, paragraphs 24 and 135.

⁶⁶ See for example Rogers Comments, paragraphs E2, 47, 94 and 138.

⁶⁷ Rogers Comments, paragraphs 6 to 10.

In order to address the dramatic growth in demand for data services, Rogers has already made significant investments to deliver innovative mobile broadband services, expanding Canada's first and most reliable 5G network, powered by Ericsson. Since early 2020, we have proudly connected more than 1,500 urban and rural communities to Rogers 5G across Canada. In fact, we recently expanded 5G access to reach more residents and businesses across eight new cities and towns throughout Eastern Ontario in partnership with the Eastern Ontario Regional Network (EORN). Through this partnership, Rogers will deliver mobile connectivity to 113 municipalities and Indigenous communities in Eastern Ontario by building more than 300 new cellular towers and upgrading over 300 pre-existing sites by 2025. We remain committed to delivering improved wireless (and wireline) connectivity to rural areas and metropolitan hubs alike.

...

It also should be acknowledged (and celebrated) that Canadian wireless prices continue to decline, as evidenced by data released by Statistics Canada. The Cellular Services Index, a sub-index of the Consumer Price Index (CPI), has fallen by 27.4% over the last two years alone. This is in a time when general inflation continues to increase monthly. In fact, the CPI rose by 4.8% in December 2021, hovering at an 18-year high, while the index for Cellular Services declined 0.8%. The national operators also fully met the 25% reductions in the costs of mid-range wireless plans – three months ahead of the Government's target and Canadians receive excellent value from facilities-based competition. At such a critical time of recovery, and for such a foundational industry, the Department should not be enacting policies that result in higher network costs, costs ultimately borne by average Canadians.⁶⁸ [footnotes omitted]

52. Rogers also does not dispute that Bell and Telus actively compete against each other in retail and wholesale markets. Rogers' primary complaint seems to be that it is dissatisfied with its own business model while the primary motivation for its proposal seems to be to compensate for its own failing network sharing relationship in Quebec. On this last point, we note the recent public disclosure related to the breakdown of Rogers' longstanding network sharing relationship in Quebec and Ontario with Videotron. That network sharing relationship is now the subject of an \$850 million lawsuit brought against Rogers by Videotron for alleged breach of contract and bad faith negotiating tactics.⁶⁹

53. It is also completely contradictory for Rogers to assert that network sharing arrangements are anti-competitive as it has multiple such arrangements of its own, e.g., with Tbaytel, QMI,⁷⁰ and Bell. Moreover, Rogers does not explain why a network sharing arrangement between Bell and Telus is an indication of coordinated bidding in auctions⁷¹ but its own network sharing arrangements with Tbaytel and Videotron are not. Moreover, Rogers and Cogeco are permitted

⁶⁸ Rogers Comments, paragraphs 6 and 14.

⁶⁹ See <https://nationalpost.com/news/canada/videotron-sues-rogers-for-850m-claiming-breach-of-contract-and-bad-faith-negotiations-over-shared-network-in-quebec>.

⁷⁰ 2018 Annual Report, <https://1vjoxz2ghhkcity8c1wjch1-wpengine.netdna-ssl.com/wp-content/uploads/2018/03/Rogers-2018-Annual-Report.pdf>, page 28.

⁷¹ Rogers Comments, paragraph 235.

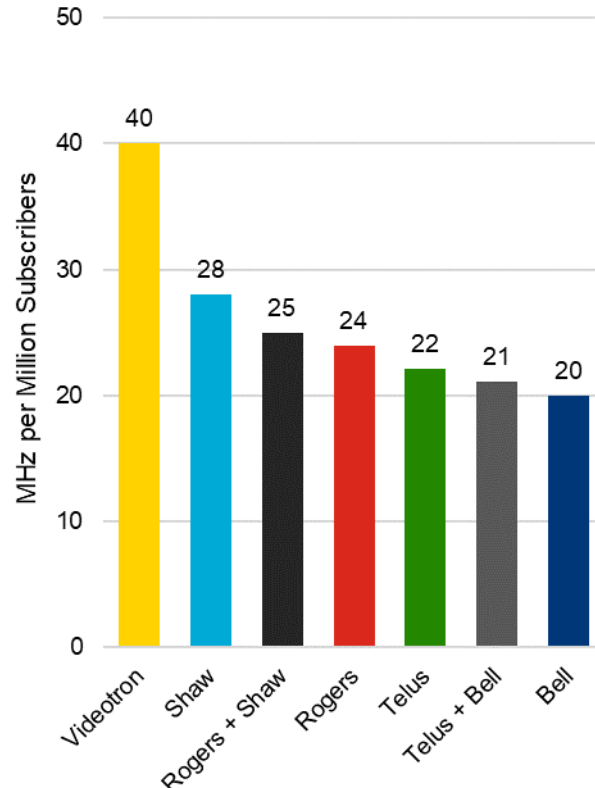
to bid separately in spectrum auctions even though they hold over 40% of the subordinate voting shares and over 12.5% of all voting rights of Cogeco Inc.⁷²

54. The current market structure and wireless policies have not prevented Rogers from acquiring spectrum. As the Department is well aware, Rogers not only has more spectrum than any other Canadian wireless carrier on an absolute basis, it has more spectrum per subscriber than either Bell or Telus, and Bell and Telus combined, even before the potential acquisition of Shaw's spectrum (see Figure 1). Rogers' surfeit of spectrum would only expand if Rogers is permitted to acquire any of Shaw's spectrum holdings as part of its attempted acquisition of Canada's fourth largest wireless provider. If Rogers' proposal to implement network-based spectrum caps were adopted it would lead to an absurd situation where Bell and Telus, which serve approximately 18 million subscribers, would be limited to acquiring the same amount of spectrum as Rogers, which serves about 11 million subscribers.⁷³ The result would be a guaranteed Government-sanctioned quality of service and/or operational cost advantage for Rogers (the largest wireless carrier in the country) over the next two largest competitors, and a long-term disadvantage to 18 million Canadian wireless subscribers.

⁷² See: [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/3500MHz-CogecoConnexionInc.pdf/\\$FILE/3500MHz-CogecoConnexionInc.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/3500MHz-CogecoConnexionInc.pdf/$FILE/3500MHz-CogecoConnexionInc.pdf).

⁷³ See: https://www.cwta.ca/wp-content/uploads/2022/02/Sub-Stats-2021-Quarter-4-EN-Devices_Web.pdf.

Figure 1: Commercial Mobile Spectrum Holdings on a MHz per Subscriber Basis⁷⁴



55. Rogers attributes its lower network speeds to the advantage that Bell and Telus have from combining their spectrum assets⁷⁵. However, as shown in Figure 1, Rogers has more spectrum per subscriber than Bell and Telus combined. Therefore, spectrum asymmetry cannot be the reason for lower speeds on Rogers' network.

56. The argument made by Rogers for MORAN network sharing lacks merit and is a recommendation for a measure that reduces spectral efficiency.⁷⁶ The evolution of technology has enabled service providers to share resources in novel ways to achieve higher efficiencies such as the use of cloud based network functions. The Department should pay no heed to Rogers' preference for MORAN network sharing arrangements. A wide range of network sharing arrangements should be encouraged as they offer different approaches to efficiency and other

⁷⁴ Spectrum holdings are national commercial mobile spectrum holdings calculated on a population weighted basis for the Cellular, 600 MHz, 700 MHz, PCS, AWS-1, AWS-3, AWS-4, 2300 MHz, 2500 MHz, and 3500 MHz (flexible-use) spectrum bands. This calculation is similar to the one used by ISED for the *National Holdings for Commercial Mobile Spectrum Licences*, 15 July 2016, available at <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11210.html>. Postpaid and prepaid subscribers are from company financial reports for Q4 2021, except Shaw, which is for Q1 2022 and Videotron on Q3 2021. Subscribers for Bell and Telus do not contain tablets and connected devices. This results in a conservative analysis of MHz per subscriber as the Rogers number is underestimated because they are reporting more subscribers relative to Bell and Telus.

⁷⁵ Rogers Comments, paragraph 87.

⁷⁶ Rogers Comments, paragraph 32.

costs/benefits to the participants. Service providers should be allowed to determine which arrangements best meet their operational needs. Allowing all types of network sharing arrangements is consistent with Enabling Guideline (a) of the *SPFC* which states "market forces should be relied upon to the maximum extent feasible."⁷⁷

57. Rogers' discussion of Multi-Operator Core Network (MOCN) versus MORAN network sharing is also misleading. Rogers added captions to a figure⁷⁸ sourced from GSMA to create the perception that somehow the Bell and Telus network arrangement is not pro-competitive. It is important to note that the GSMA makes no such classification that one of these arrangements is pro-competitive and not the other. In fact, the GSMA analyzes the pros and cons of both these arrangements together and considers the two of them to be almost identical.⁷⁹

58. Rogers recommends restricting the permitted amount of spectrum licence subordinations through licence conditions.⁸⁰ Rogers proposes that operators should not be allowed to subordinate spectrum to each other if they hold more than 40% of the spectrum in the 3500 MHz and 3800 MHz spectrum bands. The 40% threshold ignores the fact that subordinating spectrum licences does not at all impact market concentration. It is clear that Rogers' proposal is designed to ensure that both Bell and Telus can only use as much spectrum as Rogers. Limiting spectrum use by banning certain subordination arrangements on an ex ante basis is simply a designed ploy to create a competitive advantage for Rogers.

59. Rogers further recommends that the existing 3500 MHz holdings of Bell and Telus should count towards a cross-band cap of 150 MHz while still allowing Rogers to acquire 150 MHz of spectrum. Rogers also proposes that if an intent to pool spectrum in 3500 MHz through subordinate spectrum licences was not disclosed, then subsequent pooling in 3800 MHz band should be prohibited for five years. This should simply be understood as a proposal by Rogers to disrupt the network arrangements of its two national competitors and restrict the amount of spectrum available to them.

60. Not only is Rogers proposing restrictions on how its competitors can use their spectrum, it is also proposing when they can use it. Rogers' proposal for a "no-head start" requirement has no clear benefit and may result in impairing the development of the Canadian wireless industry. Rogers' anti-competitive proposal makes it quite clear that Rogers is over-extended due to its

⁷⁷ *Spectrum Policy Framework for Canada*, section 4.4.

⁷⁸ Rogers Comments, Figure 2.

⁷⁹ See: <https://www.gsma.com/futurenetworks/wiki/infrastructure-sharing-an-overview/>, section 1.4.1.

⁸⁰ Rogers Comments, paragraphs 37 and 38.

proposed acquisition of Shaw and is using the Consultation to make recommendations which will hold back the entire industry – particularly its two national competitors – while it focuses its business efforts and financial resources elsewhere. The accelerated clearing of FSS in the United States will create an opportunity for Canadian mobile service providers to deploy 3800 MHz spectrum earlier in some markets through voluntary agreements. This provides the opportunity to bring the benefits of 5G services quicker to Canadians. There can be no other reason for proposing a "no-head start" requirement than obtaining a competitive advantage for itself. Therefore, the Department should reject Rogers' "no-head start" proposal which is not to the benefit of Canadians.

61. Rogers' spectrum cap recommendations limit the amount of spectrum available to all other mobile service providers (both national and regional) so that Rogers can retain its longstanding position as the largest wireless provider in Canada with the largest spectrum holdings. Rogers' recommendations are designed to hinder market forces and particularly restrict access to spectrum for its largest competitors. Rules that prevent competition in the name of facilitating competition are counter-productive and inappropriate.

62. The Department lists three policy objectives for the Consultation: (i) foster investment and the evolution of wireless networks by enabling the development of high-quality 5G networks and technology; (ii) support sustained competition in the provision of wireless services so that all consumers and businesses benefit from greater choice and competitive prices; and (iii) facilitate the deployment and timely availability of services across the country, including in rural, remote, and Northern regions.⁸¹ In addition, the policy objective of ISED's *SPFC* is "to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource."⁸² Adopting Rogers' spectrum cap proposal will not achieve the Department's policy objectives.

63. Moreover, Rogers' spectrum cap recommendations are contrary to Enabling Guidelines (a), (d) and (h) of the *SPFC* which state that "market forces should be relied upon to the maximum extent feasible," "regulatory measures, where required, should be minimally intrusive, efficient and effective," and "spectrum policy and management should support the efficient functioning of markets by facilitating secondary markets for spectrum authorizations."⁸³

⁸¹ Consultation, paragraph 13.

⁸² *Spectrum Policy Framework for Canada*, section 4.3.

⁸³ *Spectrum Policy Framework for Canada*, section 4.4.

64. For all of the above reasons, Rogers' proposal to impose an asymmetric spectrum cap and a "no-head start" rule should be rejected.

4.0 AUCTION PROCESS FORMAT AND RULES

4.1 Auction Structure – Format

65. Most commenters⁸⁴ supported ISED's auction process format such as the use of the clock auction format, anonymous bidding and the use of generic licences in two separate categories with a 10% threshold to determine whether the 3700-3900 MHz blocks in a service area should be categorized as encumbered.⁸⁵ We also generally support the Department's proposals related to the auction format. We do not support, however, the proposal to limit set-aside spectrum to the unencumbered category in the 43 service areas with encumbrances. We agree with Telus that placing "50 MHz of the only available unencumbered spectrum beyond the reach of the national providers that are ready, willing and able to build the networks capable of meeting this goal...would work against ISED's desired outcome."⁸⁶ Assigning set-aside spectrum to the middle of the combined 3500 MHz and 3800 MHz spectrum bands will create a situation where set-aside-eligible companies could block others' efforts to achieve spectrum contiguity, which would be inconsistent with the Department's view that "contiguous blocks of spectrum can be used more efficiently."⁸⁷

66. If the Department were to implement the proposed 50 MHz spectrum set-aside, then we recommend that the blocks from 3850-3900 MHz be assigned as the set-aside blocks as they are contiguous with the future WBS spectrum (3900-3980 MHz).⁸⁸ Some set-aside-eligible companies already make use of WBS spectrum and will migrate their operations to 3900-3980 MHz. Having the set-aside spectrum assigned within 3850-3900 MHz gives set-aside-eligible entities the opportunity to combine 3800 MHz spectrum with lightly licensed WBS spectrum to achieve larger contiguous channels. This could make it easier for them to achieve the 50/10 target defined in Canada's Connectivity Strategy.⁸⁹

⁸⁴ CanWISP Comments, paragraph 73; Cogeco Comments, paragraph 57; Comcentric Comments, paragraph 58; Telus Comments, paragraph 90; Videotron Comments, paragraph 95; Xplornet Comments, paragraph 95 and Rogers Comments, paragraph 180.

⁸⁵ CanWISP Comments, paragraph 69; Comcentric Comments, paragraph 52; Eastlink Comments (Consultation questions), paragraph 17; Rogers Comments, paragraph 170; Videotron Comments, paragraph 90; SaskTel Comments, paragraph 89 and Xplornet Comments, paragraph 91.

⁸⁶ Telus Comments, paragraph 87.

⁸⁷ The Consultation, paragraph 111.

⁸⁸ SLPB-002-021, *Decision on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band*, May 2021, Decision 15 and 16.

⁸⁹ See: Canada's Connectivity Strategy - Get connected (ic.gc.ca).

Proposed Activity Rule and Range of Percentage Increments

67. We generally support the Department's proposed activity rule, however, it can be improved by implementing "all-or-nothing" bids. Cogeco also argued that "an all-or-nothing bid helps to reduce exposure risk within tier areas."⁹⁰ All-or-nothing bids would ensure that bidders can correctly express economies of scale in bandwidth, thereby ensuring that bidders are able to bid on spectrum licences that they want and not be forced to acquire spectrum licences they do not want. It could also help bidders avoid unrequested reductions in eligibility. Adopting this proposal will allow bidders to condition their bids on the actual circumstances, more accurately matching their bids to their precise preferences for switches among different blocks at specific prices.

68. In addition, the majority of commenters supported⁹¹ the clock auction format that allows for price discovery with multi-round simultaneous bidding as it was similar to the approach used in the 3500 MHz spectrum auction. However, Telus raises the issue that the use of increments closer to 20% creates accelerated price increments at the start of the auction.⁹² Rogers also expressed concern that large percentage price increments can result in very large absolute bid increments, which may unduly and unnecessarily inflates the prices of some spectrum licences relative to others.⁹³ To mitigate this issue, Rogers proposed the use of absolute minimum and maximum price increments.⁹⁴ While we support ISED's proposed range of percentage price increments, we agree that larger inter-round price increments, particularly for licences in largely populated areas, can cause drastic absolute price increases and are supportive of measures that limit price increments – particularly towards the end of the auction. Smaller bid increments at the end of the auction will support a more efficient auction process by allowing bidders to better express their demands without relying on the more complicated intra-round bidding process.

Assignment Stage

69. The majority of commenters⁹⁵ supported the Department's proposal to conduct a separate assignment round for each of the most populated service areas sequentially. We generally supported the Department's proposal, but we do not support the creation of assignment sessions

⁹⁰ Cogeco Comments, paragraph 59.

⁹¹ CanWISP Comments, paragraph 74; Comcentric Comments, paragraph 61; Telus Comments, paragraph 91; Rogers Comments, paragraph 183 and SaskTel Comments, paragraph 93.

⁹² Telus Comments, paragraph 93.

⁹³ Rogers Comments, paragraph 185.

⁹⁴ Rogers Comments, paragraph 206.

⁹⁵ CanWISP Comments, paragraph 77; Comcentric Comments, paragraph 62; SaskTel Comments, paragraph 96 and Videotron Comments, paragraph 103.

for six areas at one time after the completion of the first eight assignment rounds. Rogers supports our view and disagrees with moving to six simultaneous action rounds as it was "abrupt and jarring,"⁹⁶ in the 3500 MHz spectrum auction. However, Rogers then proposes a series of recommendations to divide regions into separate groups, removing population order for small markets and grouping areas of remaining markets that are unrelated.⁹⁷ Rogers' recommendations add many unnecessary complications to an already complex assignment process. We recommend the use of separate assignment rounds for each service area (subject to the creation of assignment areas), and that the rounds proceed sequentially in descending order of population. It is critical that bidders do not end up with fragmented spectrum holdings. Extra time should be taken during the auction to get the assignment right the first time rather than spending months correcting errors by negotiating and transferring licences after the auction is over.

Auto-contiguity and Spectrum Licence Swaps

70. Only Rogers⁹⁸ and Cogeco⁹⁹ opposed the proposal of automatic contiguity. Rogers argued that the rules are "too rigid" and that the Department fails to "anticipate that bidders may have frequency position preferences that outweigh the value of contiguity."¹⁰⁰ Rogers' and Cogeco's opposition is an attempt to block their competitors from achieving spectrum contiguity. As with a number of other commenters,¹⁰¹ we support the Department's proposal to automatically assign contiguous spectrum to existing licensees who have the 3640-3650 MHz spectrum block starting at 3650 MHz in the 129 service areas where only unencumbered blocks are available. Multiple operators with contiguous spectrum is the optimal outcome of the licensing process and thus, the assignment process should be designed to support this result.

71. We believe that automatic contiguous spectrum assignment for existing licensees at 3640-3650 MHz will be the first step in creating contiguous spectrum for all licensees and will simplify the spectrum licence swap process which is designed to support the attainment of contiguous spectrum for all licensees. Rogers¹⁰² and Technation¹⁰³ further suggest that the Department should facilitate spectrum contiguity through a chairing group. We are supportive of

⁹⁶ Rogers Comments, paragraph 216.

⁹⁷ Rogers Comments, paragraph 217.

⁹⁸ Rogers Comments, paragraph 214.

⁹⁹ Cogeco Comments, paragraph 76.

¹⁰⁰ Rogers Comments, paragraph 218.

¹⁰¹ Telus Comments, paragraph 98; Terrestar Comments, paragraph 53; Sogetel Comments, paragraph 69; Iristel Comments, paragraph 59 and SaskTel Comments, paragraph 97.

¹⁰² Rogers Comments, paragraph 228.

¹⁰³ Technation Comments, page 4.

such a group and encourage all efforts to ensure spectrum contiguity in the combined 3500 MHz and 3800 MHz spectrum bands.

72. The majority of commenters supported the Department's proposal to permit, after the announcement of the provisional licence winners, an exchange through a transfer request, of equal amounts of 3500 MHz and 3800 MHz spectrum within the same licence area, between a set-aside-eligible entity and a set-aside-ineligible entity across the spectrum bands.¹⁰⁴ We support the Department's proposal. While non-contiguous carrier aggregation can be a useful tool to increase channel size, contiguous spectrum offers benefits that cannot be achieved through carrier aggregation. Contiguity between the 3500 MHz spectrum band and 3800 MHz spectrum band would allow the mobile industry to maximize the benefits of 5G technologies. Iristel echoes our statements in its argument that "[spectrum swaps] will lead to a more efficient operation by operators having licenses in both 3500 MHz and 3800 MHz bands."¹⁰⁵

73. We recommend that the CoLs simply be swapped in such transfers. Set-aside-eligible licences may have certain restrictions associated with them which should accompany the licence in such cases. Furthermore the deployment obligations should be swapped in such cases as the 3500 MHz spectrum licences will be put into deployment earlier than the 3800 MHz spectrum licences and their deployment milestones will not be the same. In addition, we recommend that the Department consider revising the milestones for deployment targets in such cases if a reasonable application is made by the licensee. For instance, if a licensee who is on target to meet the 3500 MHz deployment milestone swaps its 3500 MHz spectrum for 3800 MHz spectrum, it may cause the licensee to replace or upgrade its radio equipment. This could require the licensee to revise its plans to meet the deployment targets as defined in the licence conditions. Finally, licence fee obligations should be swapped in cases where the swap includes licences which have spectrum licence fees associated with them.

4.2 Affiliated and Associated Entities and Prohibition of Collusion Rules

74. The majority of commenters¹⁰⁶ supported the Department's proposed affiliated and associated entity rules as well as the proposed rules prohibiting collusion and other

¹⁰⁴ CanWISP Comments, paragraph 83; Cogeco Comments, paragraph 78; Comcentric Comments, paragraph 67; Eastlink Comments (Consultation questions), paragraph 20; Telus Comments, paragraph 108; Videotron Comments, paragraph 106; Rogers Comments, paragraph 226; SaskTel Comments, paragraph 98; Sogetel Comments, paragraph 70 and Terrestar Comments, paragraph 56.

¹⁰⁵ Iristel Comments, paragraph 60.

¹⁰⁶ CanWISP Comments, paragraph 84; Telus Comments, paragraph 113; Videotron Comments, paragraph 108; SaskTel Comments, paragraph 99; Xplornet Comments, paragraph 100; Sogetel Comments, paragraph 73 and Terrestar Comments, paragraph 57.

communication rules. Ecotel, however, terms the subordination of spectrum between Bell and Telus as an appearance of pre-auction collusion.¹⁰⁷ Similarly, Rogers proposed a significant overhaul of the rules regarding affiliated and associated entities, specifically targeting the network arrangement between Bell and Telus.¹⁰⁸

75. These allegations are baseless as Telus and Bell actively compete against each other across Canada in every market for both retail and wholesale services. There is no evidence to support such claims or how the network reciprocity agreement between Bell and Telus negatively impacts competition or the Canadian public.

76. We support the proposed affiliated and associated entity rules and the rules prohibiting collusion and other communication rules. The current collusion and affiliated and associated entities policies and rules have a proven track record of working together to maintain the integrity of the auction process. The policies and rules establish a clear and comprehensive set of behavioural norms that prohibit parties from inappropriately engaging in collusive conduct.

77. The Department has reviewed the affiliated and associated entities rules on numerous occasions and every time has concluded that they are sufficient to maintain auction integrity. We agree. Providing entities with an opportunity to bid separately if there is no harm to the integrity of the auction is entirely consistent with regulating to the minimum extent necessary to achieve the underlying policy objective. Entities that have demonstrated a clear intention to compete against each other in the downstream retail market are motivated to independently source and control their critical network inputs. This leads them to seek access to their own spectrum in order to meet their own subscribers' needs.

78. The Department has minimized the risk related to associated or affiliated entities by requiring an extensive review of a number of factors before allowing associated entities to bid separately in the auction. The Department states:

To obtain approval to participate separately in the auction, associated entities will be required to demonstrate to ISED's satisfaction that they intend to separately and actively provide services in the applicable licence area. Associated entities wishing to participate in the auction separately would be required to submit their application at least two weeks in advance of the final application deadline. This requirement would provide ISED with the additional time necessary to assess the nature of the association between the entities. Should the request be denied, only one of the associated entities will be eligible to apply to participate in the

¹⁰⁷ Ecotel Comments, paragraph 87.

¹⁰⁸ Rogers Comments, paragraphs 230 to 242.

auction."¹⁰⁹

79. Rogers argues that "the associated entity rules should be amended to recognize existing relationships between carriers in joint networks."¹¹⁰ It is clear under the Department's proposed associated entity definition that Telus and Bell are not associated entities for the purposes of the 3800 MHz auction.

80. There is no compelling reason for the Department to change their affiliated and associated entity rules or their prohibition of collusion and other communication rules. Therefore, the Department should reject proposals that request changes to the proposed rules regarding affiliated and associated entities and prohibition of collusion and other communication rules.

4.3 Auction Structure – Process

Opening Bids

81. Rogers¹¹¹ and Eastlink¹¹² were supportive of the opening bid prices. Although we agree that the 3800 MHz spectrum auction will deliver significant value to Canadians, we do not fully support Rogers' and Eastlink's position and recommend that opening bid prices should be conditioned on the implementation of spectrum set-asides. The best way to ensure that spectrum is sold at fair market value is to hold an auction without spectrum set-asides. Auctions without spectrum set-asides can have lower opening bid prices since market forces will determine the fair value of the spectrum.

82. An Analysis Mason report identifies that Canada's opening prices for spectrum auctions are higher compared to other benchmark countries.¹¹³ High opening bid prices is considered to be one of the reasons leading to higher spectrum prices.¹¹⁴ This view was shared by Comcentric which argued that prices per MHz-Pop in Canada are exceptionally high compared to other

¹⁰⁹ Consultation, paragraph 128.

¹¹⁰ Rogers Comments, paragraph 239.

¹¹¹ Rogers Comments, paragraph 298.

¹¹² Eastlink Comments (Consultation questions), paragraph 27.

¹¹³ Analysis Mason, *Pro-competitive measures and coverage obligations in mid-band auctions*, 11 February 2022, page 24, available at https://www.analysismason.com/contentassets/bc3c7101b916429d9c5f37d8e78f803a/analysys_mason_procompetitive_coverage_midband_feb2022.pdf.

¹¹⁴ GSMA, *Spectrum Pricing*, May 2021, page 6 available at <https://www.gsma.com/spectrum/wp-content/uploads/2021/05/Spectrum-Pricing-Positions.pdf>.

jurisdictions such as the United States and Europe.¹¹⁵ Telus also noted that "the average opening bid price far exceeds the global median opening bid price by a factor of approximately 10x."¹¹⁶

83. If the Department does not impose a spectrum set-aside, it should lower the opening bid prices for service areas with a population over 2 million to the same opening bid price level used in the 2500 MHz auction in 2015. If the Department does impose a spectrum set-aside, then the opening bid prices should remain at their proposed level to mitigate the Canadian tax payer funded subsidy associated with the price of set-aside spectrum.

Final Payment

84. We proposed that the Department's due date for the remaining 80% of the final payment should be the date on which the spectrum is available to be put into service by licensees.¹¹⁷ A number of commenters such as Rogers¹¹⁸, CWTA,¹¹⁹ Cogeco¹²⁰ and Xplornet¹²¹ support this position and recommended that the Department delay licence fees until the licences are usable. As the CWTA states: "winners should not be required to make payment for licences until the spectrum band is cleared of FSS operations." We agree with this position and echo Rogers' comments that "payment terms for 3800 MHz spectrum should also align with the dates when the spectrum is usable...operators will not be able to obtain any meaningful return from deploying the spectrum before then."¹²² It would be punitive for successful bidders to pay hundreds of millions of dollars for something they cannot use for several years. These are costs that would be borne today but would not contribute to the production of services and generation of revenue because the spectrum cannot be put to use. This results in an inefficient allocation of resources which could have been put to different uses such as network improvements, customer service enhancements and the development of new products and services.

85. No commenter defended the position that final auction payments should be made years before the spectrum becomes available. It is not as if the Government will incur costs during the spectrum's unusable period for which it requires billions of dollars of industry funding. In fact, the Department has put forward no rationale as to why wireless network builders, and ultimately Canadians, should pay billions of dollars for something that is unusable for years.

¹¹⁵ Comcentric Comments, paragraph 94.

¹¹⁶ Telus Comments, paragraph 144.

¹¹⁷ Bell Comments, paragraph 126.

¹¹⁸ Rogers Comments, paragraph 245.

¹¹⁹ CWTA Comments, paragraph 35 to 37.

¹²⁰ Cogeco Comments, paragraph 94.

¹²¹ Xplornet Comments, paragraph 105.

¹²² Rogers Comments, paragraph 245.

5.0 LICENCE AREAS

86. A few commenters¹²³ proposed the use of Tier 5 service areas for licensing in rural areas, whereas Cogeco proposed the use of Tier 5 service areas in the three large metropolitan centres.¹²⁴ We oppose the use of Tier 5 service areas in the 3800 MHz spectrum band. The Department has identified that using Tier 5 service areas would add significant complexity to the auction process¹²⁵. We agree. Furthermore, the use of Tier 5 service areas will complicate the planning and optimization of a service provider's network since part of the spectrum band for a licensee would be licensed on a Tier 4 basis while the rest of it is licensed on a Tier 5 basis. Planning and optimizing in such a scenario, particularly in the three largest metropolitan centres, will be unnecessarily difficult and will lead to inefficient use of the spectrum due to mitigation measures in order to avoid interference along service area borders.

6.0 CONDITIONS OF LICENCE FOR FLEXIBLE USE SPECTRUM LICENCES IN THE 3800 MHZ SPECTRUM BAND

6.1 Licence Term

87. No commenters opposed the 20-year licence term. Long-term licence terms are appropriate in consideration of the very significant investments required by carriers to deploy spectrum, the need to coordinate with international standards bodies and equipment manufacturers, and the technology lifecycles common in the wireless industry. As noted in the Consultation, longer licence terms "create [a] greater incentive for financial institutions to invest in the telecommunications industry and for the industry itself to further invest in the development of network infrastructure, technologies and innovation."¹²⁶

88. Due to the well-known and planned delay in incumbent satellite licensees vacating the 3800 MHz spectrum to be auctioned, licence terms should only begin when a licensee is able to deploy the licence and not when the licence is issued. Cogeco, Eastlink and the CWTA make the same recommendation.¹²⁷ If, for example, the licences are not usable for two years after the auction because the incumbent satellite licensee must vacate the spectrum, then the licence term is effectively 18 years, not 20 years. This is clearly inconsistent with the desired policy of having

¹²³ Ecotel Comments, paragraph 30; Comcentric Comments, paragraph 10 and CanWISP Comments, paragraph 26.

¹²⁴ Cogeco Comments, paragraph 13.

¹²⁵ SLPB-001-20, *Policy and Licensing Framework for Spectrum in the 3500 MHz Band*, paragraph 85.

¹²⁶ Consultation, paragraph 153.

¹²⁷ Cogeco Comments, paragraph 94; Eastlink Comments (Consultation questions), paragraph 22 and CWTA Comments, paragraph 35.

20-year licence terms. One significant implication of this is that any deployment conditions are effectively two years shorter than indicated by the proposed CoLs, which in some cases may not be reasonable. For example, rather than the first general deployment deadline being five years, the deadline is actually three years since the licences are unusable for the first two years. If this condition is not amended, then ISED should make it clear to potential bidders in the 3800 MHz auction that the "effective licence term" is less than 20 years and this fact should be incorporated into their bidding strategies. ISED should also not refer to 20-year licence terms and recalibrate the deployment obligations in any documentation or media releases since this would be incorrect and misleading.

6.2 Research and Development

89. Telus recommended that the Department remove the R&D CoL in its entirety.¹²⁸ We are supportive of this recommendation. As a legacy CoL that was initiated more than 31 years ago, the R&D spending requirement is both unnecessary and out-of-step with today's modern wireless industry. The CoL is, therefore, inconsistent with Government policy objectives related to encouraging innovation and investment and reducing the administrative burden on regulated companies. We recommend that the Department eliminate the CoL from all spectrum licence conditions, including those for new 3800 MHz flexible-use licences. By doing so, the Department will provide licensees with greater operating flexibility to address consumers' needs and will be regulating in a manner consistent with the Government's policy to rely on market forces to the maximum extent feasible.¹²⁹

90. If ISED does not eliminate the R&D spending condition, it should, at a minimum: (i) eliminate or significantly lower the revenue exemption threshold to broaden its applicability and make this regulatory requirement more symmetrical among all licensees; (ii) discontinue using the SR&ED definition of eligible R&D expenditures (which was put in place for an entirely different policy purpose and is inappropriately restrictive); and (iii) lower the 2% spending requirement significantly (e.g., to 0.5% or lower).

¹²⁸ Telus Comments, paragraph 127.

¹²⁹ The Government's Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, SOR/2006-355, states that "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".

6.3 **Mandatory roaming**

91. In TRP 2015-177¹³⁰, the CRTC determined that it would mandate the provision, and regulate the rates, of Global System for Mobile communications (GSM)-based wholesale roaming services provided by Rogers, Telus, and Bell to all other wireless carriers. In that same policy, the CRTC concluded that it would be inconsistent with the objectives of the *Telecommunications Act* to mandate the provision, or regulate the rates, of the GSM-based wholesale roaming services provided to Rogers, Telus and Bell. In other words, in TRP 2015-177, the CRTC established duplicative and inconsistent roaming regulations to those contained in ISED's CPC-2-0-17. Nothing in the CRTC's more recent review of wireless services¹³¹ changed this regulatory inconsistency. As explained below, this development created an untenable regulatory situation for the industry. Moreover, by fundamentally changing spectrum licence conditions in the middle of a licence term, the Government and CRTC have undermined the rules underpinning the hundreds of millions spent by spectrum licensees and introduced significant regulatory uncertainty, to the detriment of future investments.

92. Rogers stated that this CoL is not duplicative of CRTC tariff regulation.¹³² We disagree. It is redundant and inefficient for two Government entities to regulate the same activities performed by the same companies. In the case of wholesale roaming, the problem is not just duplication and the inefficiencies that this causes. It is also that ISED's wholesale roaming regulations are inconsistent with the CRTC's wholesale roaming regulations. Historically, ISED has been the regulatory body responsible for wholesale roaming services (undertaken as part of its overall spectrum oversight role) and has an effective, less intrusive regulatory approach than the CRTC.

93. Moreover, the Government and the Minister have acknowledged at several different points the harm done by duplicative regulations. Eliminating duplicative wholesale roaming regulations between ISED and the CRTC would be consistent with, and supportive of, successive Governments' policy objectives and priorities. Keeping this CoL would be contrary to Enabling Guideline (d) of the *SPFC* which states that "regulatory measures, where required, should be minimally intrusive, efficient and effective,"¹³³ and would be counter to the Government's priority of reducing duplicative regulatory requirements.¹³⁴

¹³⁰ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 128.

¹³¹ Telecom Regulatory Policy CRTC 2021-130, *Review of mobile wireless services*.

¹³² Rogers Comments, paragraph 258.

¹³³ *Spectrum Policy Framework for Canada*, section 4.4.

¹³⁴ Department of Finance Canada, *Investing in Middle Class Jobs*, November 2018, page 73, available at <https://www.budget.gc.ca/fes-eea/2018/docs/statement-enonce/fes-eea-2018-eng.pdf>.

94. A mandatory roaming CoL is at odds with promoting facilities-based competition and network infrastructure investments. Specifically, the mandatory roaming CoL creates an incentive for one carrier to make the strategic decision not to invest in or upgrade its own network in favour of roaming on one or more of its competitors' networks. This is a particularly attractive strategy in non-urban markets where smaller populations and low population densities mean that the business incentive to invest in new or improved network capabilities is diminished or simply non-existent. This risk to network investments is another reason not to include a mandatory roaming CoL for the licences in question.

95. There is simply no rationale for the Department to maintain the status quo. Therefore, there should not be a mandatory roaming CoL applicable to 3800 MHz spectrum licences. While this is a logical first step in adhering to Government policy regarding smart regulation, the problem must be addressed more broadly such that the mandatory roaming CoL for all spectrum licences should be eliminated.

96. The *SPFC* states that "[r]egulatory measures, where required, should be minimally intrusive, efficient and effective" and "[s]pectrum management practices, including licensing methods, should minimize administrative burden and be responsive to changing technology and market place demands."¹³⁵ If the Department elects not to remove the mandatory roaming CoL in totality, then both of the enabling guidelines referenced above support the elimination of mandatory roaming among the three national mobile service providers. If the Department does not adopt our recommendation to eliminate mandatory roaming for all carriers, then it should, at a minimum, do so for the NMSPs.

97. Rogers, Telus and Bell are sophisticated businesses with multifaceted wholesale relationships spanning wireline and wireless telecommunications and broadcasting lines of business. Moreover, Rogers has the scale and access to capital required to invest in rural connectivity. What it lacks is commitment to do so. If Rogers is able to secure the capital necessary to fund its proposed \$26 billion acquisition of Shaw¹³⁶, then they can secure the necessary capital to invest in networks in rural and remote areas rather than relying on mandatory roaming as a substitute. Maintaining mandatory roaming confers an unwarranted competitive advantage on Rogers to the detriment of the other NMSPs. In consideration of these facts, there

¹³⁵ *Spectrum Policy Framework for Canada*, section 4.4, Enabling Guideline (d) and (f).

¹³⁶ See: <https://about.rogers.com/news-ideas/rogers-and-shaw-to-come-together-in-26-billion-transaction-creating-new-jobs-and-investment-in-western-canada-and-accelerating-canadas-5g-rollout/>.

is no need for ISED to regulate the provision of wholesale roaming services among these companies. Market forces can be relied upon to address any competitive or market issues that may arise related to wholesale roaming.

6.4 Annual Reporting

98. In ISED's decision on the renewal process for AWS-1 licences, the Department acknowledged that all but two respondents to the proceeding recommended removing or modifying the requirements contained in the Annual Reporting CoL to decrease the administrative burden on licensees.¹³⁷ As a result, the Department indicated a willingness to launch a Consultation process to review this CoL.¹³⁸ That was four years ago and no Consultation has been launched. To avoid adding to the inefficiencies presented by the Annual Reporting condition that applies to other spectrum bands, ISED should not include a similar CoL for 3800 MHz spectrum licences.

99. As an alternative to regularly scheduled data collection, the Department could modify the CoL such that licensees are required to provide information on the Department's request, with appropriate notice. For example, the Department could issue a request for information three months in advance of its due date and customize the request to the Department's particular needs for the licences in question. Under this model, the expectation is that only a subset of the current data would be collected and it would be collected on an as-needed basis only (i.e., less frequently than the current annual schedule).

6.5 Spectrum Licence Subordinations

100. Ecotel proposed that Wireless Internet Service Providers should have access to mandated subordinate spectrum licences,¹³⁹ but then proposed that the Department impose a moratorium for spectrum licence subordinations on us and Telus.¹⁴⁰ Such a proposal serves no purpose other than to hamper the ability of two of Canada's national service providers to efficiently use the spectrum to the benefits of Canadians. Spectrum licence subordinations allow spectrum to be put into use in a cost effective way. Moreover, we are putting spectrum to use for rural Canadians

¹³⁷ SLPB-001-18 - *Spectrum Licence Renewal Process for Advanced Wireless Services (AWS-1) and Other Spectrum in the 2 GHz Range*, paragraph 69.

¹³⁸ Ibid.

¹³⁹ Ecotel Comments, paragraph 20 and 63.

¹⁴⁰ Ecotel Comments, paragraph 88.

and will need to add more spectrum to increase the speeds and quality of service to Canadians in rural and remote areas.¹⁴¹

101. Mandated spectrum licence subordinations is an overly intrusive regulatory policy that would be contrary to Enabling Guidelines (a) and (d) of the *SPFC* which state "market forces should be relied upon to the maximum extent feasible," and "regulatory measures, where required, should be minimally intrusive, efficient and effective"¹⁴² and would interfere with carriers' long-term network deployment plans. Licence terms and deployment conditions are designed to give licensees sufficient time to undertake the significant investment and planning required to deploy spectrum. If licensees were forced to subordinate all or part of their licences, it could seriously hinder their own plans to deploy in that area. The current policy framework and deployment requirements continue to be an effective method of facilitating spectrum use and the Department should not alter their approach.

6.6 Licence Transfers

102. Ecotel recommended that there should be no spectrum cap expiration date.¹⁴³ This is yet another short-sighted proposal that ignores the changes in technology and competitive dynamics of the market. There is no justification to keep a spectrum cap in place forever. On the contrary, it is important to have a clear expiration date to provide regulatory certainty and to provide network operators an opportunity to acquire additional spectrum as technology evolves and creates newer use cases.

6.7 Deployment Requirements

103. There was wide support¹⁴⁴ for removing the asymmetric LTE-related deployment conditions. There is consensus in the industry that the LTE-related deployment conditions punish those who have made higher investments in LTE network deployments. Canada's national LTE networks provide coverage to virtually all Canadians. For example, we have deployed sites in the northern part of Nunavut and have two sites located north of the Northwest Passage. This outcome is the result of years of network building and billions of dollars in investment, at levels

¹⁴¹ See: <https://www.newswire.ca/news-releases/bell-doubling-rural-internet-download-speeds-with-wireless-home-internet-service-expanding-to-rural-atlantic-canada-853970868.html>.

¹⁴² *Spectrum Policy Framework for Canada*, section 4.4.

¹⁴³ Ecotel Comments, paragraph 58.

¹⁴⁴ Terrestar Comments, paragraph 65; Technation Comments, page 5; Sogetel Comments, paragraph 85; Rogers, Comments, paragraph 270; Eastlink Comments, paragraph 15 and Comcentric Comments paragraph 85.

that top our international peers.¹⁴⁵ Moreover, it is contrary to ISED's policy as it discourages deployment rather than encourages it. If the Department's goal is the expansion of 5G coverage to rural areas, then we recommend that the Department reject the proposed LTE-related deployment requirement. If it feels that the proposed general deployment requirements are insufficient, then it could strengthen them as they are applied symmetrically to all licensees.

104. Videotron, Cogeco, the CWTA and Eastlink¹⁴⁶ also expressed concerns regarding the deployment conditions and availability of spectrum for flexible-use. It was highlighted that the spectrum is in use by FSS until March 2025 and therefore the deployment milestones should begin from that date. We agree, otherwise the five-year milestone will in fact be a three-year deployment milestone. Therefore, we recommend that the timing of the general deployment requirements only start once the spectrum is available for flexible-use.

105. Terrestar, Cogeco, Comcentric and Eastlink¹⁴⁷ oppose accelerating the deployment milestones. We agree as the timelines in Annex B of the Consultation are much more aggressive than indicated, as there will be a multi-year lag between when the licences are issued and when the incumbent satellite licensees have vacated the spectrum so that licensees may begin deploying them. ISED cannot reasonably assume that a 3800 MHz licensee has a 3500 MHz spectrum licence in the same licence area or, if it does that the 3500 MHz spectrum can be deployed on a synergistic basis. Moreover, even if some synergies are available, the licensee may be required to replace or upgrade the radios, which is costly and will slow deployment. If a licensee has 3500 MHz and 3800 MHz spectrum in the same licence area there is no guarantee that the licences will be contiguous (although we understand that this is ISED's objective). Where the licences are not contiguous the deployment of 3800 MHz spectrum may require the rollout of new equipment capable of spanning the frequency gap. This will be a capital intensive exercise on a scale similar to deploying 3500 MHz spectrum, which suggests that the deployment timelines for 3800 MHz should at least allow as much time as was given for 3500 MHz spectrum deployment.

¹⁴⁵ In fact, Canadian facilities-based wireless providers have invested more capital on a per subscriber basis than any other G7 country; see Canadian Wireless Telecommunications Association. *Facts and Figures*, available at <https://www.cwta.ca/facts-figures/>.

¹⁴⁶ Videotron Comments, paragraph 120; Cogeco Comments, paragraph 104; CWTA Comments, paragraph 35 and Eastlink Comments, paragraph 17.

¹⁴⁷ Terrestar Comments, paragraph 67; Cogeco Comments, paragraph 107; Comcentric Comments, paragraph 87 and Eastlink Comments (Consultation questions), paragraph 25.

106. Telus recommends that the Department adopt expansive "use-it-or-lose-it" policies.¹⁴⁸ We disagree. ISED's proposed general deployment requirements are sufficient to ensure that 3800 MHz spectrum is deployed in rural and remote areas. Moreover, Canada's facilities-based wireless providers do not require additional CoLs to deploy in rural and remote areas. They are already striving to minimize the coverage gap between urban, rural and remote areas and have achieved remarkable success. Since 2013, rural 4G LTE coverage across Canada has increased from 35% to 97.4%.¹⁴⁹ Thus, there is no demonstrated need that supports any additional measures or change to deployment requirements.

7.0 MEASURES TO SUPPORT CANADA'S CONNECTIVITY STRATEGY

107. A number of commenters¹⁵⁰ recommended against ISED mandating any new measures until the outcome of existing measures are known. This echoes our comments that considering any new measures as part of the 3800 MHz licensing process is premature.¹⁵¹ We believe that a number of measures initiated by the Government including establishment of multiple funds for deployment of broadband and releasing significant licence-exempt spectrum will play a major role in meeting the targets of Canada's Connectivity Strategy. We recommend that the Department reviews the outcome of the various existing policy measures before mandating new policies. New programs could have the unintended consequence of impeding the existing plans of Canadian services providers to meet the targets set in Canada's Connectivity Strategy.

108. However, one change that ISED should implement to support Canada's Connectivity Strategy is to eliminate the mandatory roaming CoL. Because of our longstanding strategy of investing in rural Canada, our network is more expansive in these areas than other carriers' networks. This makes it more efficient and effective for a roamer to simply rely on our rural network investments than to make their own. This is a deliberate business decision by some roamers to forego rural network investments in favour of investing capital to build networks in urban areas where roaming on our network is unnecessary.

109. For example, Rogers already has all of the scale and assets required to invest in rural connectivity. In a previous transaction with Shaw, Rogers acquired the incumbent cable operation

¹⁴⁸ Telus Comments, paragraph 122.

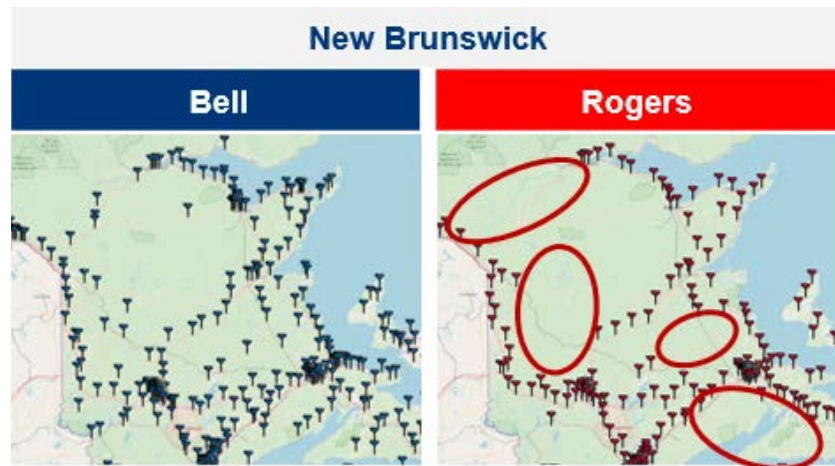
¹⁴⁹ CRTC, Communications Monitoring Report, 2020, available at <https://crtc.gc.ca/eng/publications/reports/policymonitoring/2020/index.htm>, page 98.

¹⁵⁰ Terrestrial Comments, paragraph 69; SSI Comments, paragraph 49; Sogetel Comments, paragraph 91; Videotron Comments, paragraph 135; Xplornet Comments, paragraph 115 and Comcentric Comments, paragraph 91.

¹⁵¹ Bell Comments, paragraph 120.

throughout New Brunswick.¹⁵² As Figure 2 shows, despite now being the incumbent cable operator in the area, as well as the largest wireless carrier and spectrum holder nationally, Rogers has not invested in closing rural connectivity gaps in New Brunswick.

Figure 2: Comparison of Rogers and Bell Coverage in New Brunswick¹⁵³



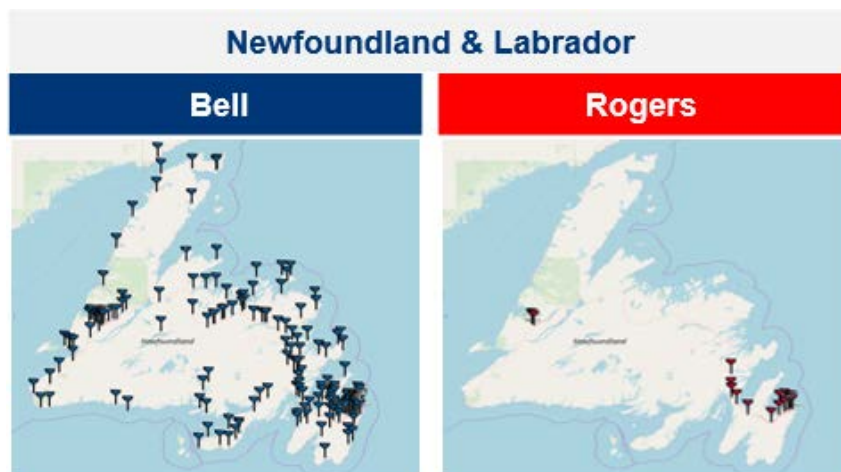
110. In a similar transaction, Rogers previously acquired the incumbent cable operator serving St. John's, Corner Brook, Gander, and Grand Falls/Windsor in Newfoundland and Labrador.¹⁵⁴ This did not result in Rogers making large investments to close rural connectivity gaps in Newfoundland and Labrador. As shown in Figure 3, Rogers continues to provide substandard wireless connectivity in the province. Rogers is not required to invest in these areas because they can rely on the mandatory roaming CoL to fill in their network coverage. In this way, the mandatory roaming CoL perpetuates the rural-urban divide and subverts Canada's Connectivity Strategy.

¹⁵² <https://www.cbc.ca/news/canada/rogers-nabs-shaw-cable-1.201335>.

¹⁵³ Information from Canadian Cellular Towers Map, available at: https://www.ertyu.org/steven_nikkel/cancellsites.html.

¹⁵⁴ <https://www.cbc.ca/news/business/rogers-buys-cable-atlantic-1.228593>.

Figure 3: Comparison of Rogers and Bell Coverage in Newfoundland & Labrador¹⁵⁵



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¹⁵⁵ Information from Canadian Cellular Towers Map, available at: https://www.ertyu.org/steven_nikkel/cancellsites.html.