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March 21, 2022

Via email: spectrumauctions-encheresduspectre@ised-isde.gc.ca

Matthew Kellison

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Re: Canada Gazette Notice No. SLPB-006-21: Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band – Rogers Reply Comments

Mr. Kellison,

Attached, please find Reply Comments from Rogers Communications Canada Inc. (Rogers) in response to *Canada Gazette*, Part I, December 25, 2021, *Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band* (SLPB-006-21)

Rogers thanks the Department for the opportunity to provide input on this important issue.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Howard Slawner', with a stylized flourish at the end.

Howard Slawner
Vice President – Regulatory Telecom
HS/pg

Attach.

Consultation on a Policy and Licensing Framework for
Spectrum in the 3800 MHz Band
SLPB-006-21

Reply Comments of
Rogers Communications Canada Inc.
March 21, 2022



Executive Summary

- E1. In order to preserve competition in the Canadian wireless industry, and ensure continued investment in all regions of the country, it is essential that Innovation, Science and Economic Development Canada (the Department) does not implement the proposed 100 MHz cross-band cap. Such a measure would undermine Canadian wireless policy and permanently skew the competitive landscape. To begin with, introducing such a rule at this time would breach a principle of fundamental justice (and fairness). Any measure should have been instituted before the 3500 MHz auction so all bidders could have adjusted their bidding accordingly, but the Department declined to do so, even in the face of numerous stakeholder recommendations. As such, Rogers and all bidders had a legitimate expectation that no-cross band measures would be later adopted. Implementing it in-between the two auctions arbitrarily rewards some carriers, particularly Telus and Bell, while punishing others with no justification. Secondly, and more importantly, it will result in an irreversible spectrum and services imbalance between the two national networks that cannot be otherwise corrected. Such an outcome cannot be in the best interest of Canada, the Canadian wireless industry or Canadian consumers and businesses.
- E2. The consultation record makes clear that the parties supporting tight per operator spectrum caps across the 3500 MHz and 3800 MHz bands are doing it for extremely self-serving purposes, irrespective of the clear and lasting damage it will have to Canadian wireless consumers and the economy. Auctioning 3800 MHz spectrum at a Tier 4 level with no package bidding increases the ability of smaller, regional operators to compete in their local areas, while large regional service providers are well-capitalized and already strongly competitive in their service areas. If the Department ultimately believes regional service providers need continued support in the upcoming auction, against continued evidence to the contrary, the Department should adopt the much less harmful 50 MHz set-aside option. This will provide them with preferential and subsidized access to 100 MHz across the 3500 MHz and 3800 MHz bands, in addition to regional operators' transition 3500 MHz holdings.
- E3. In the past, the Department has adopted "pro-competition measures" in spectrum auctions in order to support the regional service providers, which have also unintentionally but quite clearly benefited the Bell-Telus (Belus) joint network. The tight cross-band proposal of this Consultation turns this on its head, with Bell and Telus poised to be the primary beneficiaries and the regional operators receiving indirect support. The tight cap proposal is not "pro-competition" but anti-competition, or, more accurately, government-subsidized, competitive support for

Bell and Telus and their Belus joint network. Instead of addressing the policy failure in 2008 and 2009, which saw the coming together of Canada's second and third largest networks, something completely unheard of in any peer jurisdiction, a tight cross-band spectrum cap that does not address the anti-competitive nature of Bell and Telus' spectrum pooling arrangement will irreparably damage the competitive landscape of the Canadian wireless market, with consumers ultimately suffering.

- E4. Healthy competition requires having multiple economically and technically efficient networks striving to offer the best services to all Canadians, urban and rural. However, the essential part of this national facilities-based competition is two national networks with the potential to offer speeds, quality of service, and capacity of *relatively equal quality*. Without (near) parity of 3500 MHz and 3800 MHz spectrum, the premier 5G mid-band, national facilities-based competition will not be economically possible. By adopting a tight cross-band cap per operator while not taking any action against the anti-competitive spectrum pooling by Bell and Telus, it would thus signal that Canadian wireless competition policy has shifted from permitting the joint Belus network to be able to achieve the fastest peak speeds to supporting their network becoming twice as fast as competitors with far more capacity to meet the needs of ever-continuing mobile (and now fixed wireless) data growth. Rogers is eager and willing to compete vigorously in the market against Bell and Telus and was the first to launch 5G in Canada; however, the Consultation proposals artificially stack the deck against us. A tight per operator cap singularly penalizes Rogers, but Canadian wireless consumers and businesses will be the real losers from an effective end to facilities-based competition inside and outside of urban centres. The Department should not adopt any per operator cross-band cap; however, if it ultimately does, it must not be less than 150 MHz to account for Belus spectrum pooling.
- E5. As is widely acknowledged by industry stakeholders (including in their comments) and industry analysts, and is a fact that cannot be denied by the Department, past auction rules have treated Bell and Telus as separate spectrum bidders because they compete against each other in the retail market for customers. However, the auction rules have willingly ignored the reality that they do not engage in meaningful facilities-based competition against each other due to the associated benefits of their Belus network sharing arrangement. This has allowed Bell and Telus to circumvent past auction competition rules, bidding to the maximum per operator level, and then immediately pooling their spectrum in their joint network. Having split the country into regional spheres of influence, largely based on their wireline networks that provided a decades-long head start to build facilities under

monopoly rights and protections, they also seek to acquire a 2:1 spectrum advantage against their primary competitor, Rogers, even though in aggregate they hold just 1.6 times as many customers.

- E6. Having twice the amount of spectrum relative to 1.6 times the number of customers does not tell the whole story. Having twice the amount of spectrum raises floor speeds, average speeds, and peak speeds that cannot be matched. This is because of the spectral trunking efficiency that is gained through the use of wide channels. The analogy being that a two-lane highway is far more efficient at carrying traffic than a single-lane highway. In the case of 5G, this analogy is even more appropriate in that a multi-lane highway (or a wide up to 100 MHz channel in sub-6GHz 5G spectrum) can optimize the performance of many different types of traffic at the same time, including: voice; high, low, and variable bitrate data; video; narrowband and broadband IoT; and, Fixed Wireless access, all at the same time. All of these services have very different requirements on the network and can be managed via a common control channel much more efficiently than a network with 100MHz or 50% of the carrying capacity and related inequality of performance. The ability to provide Canadians with more than one strongly innovative national network should be decided by business cases and competition beginning with a level playing field with regard to acquiring spectrum.
- E7. Further, as Rogers must compete against Telus in the west and Bell in the east, previous frameworks have resulted in Rogers paying a premium at auctions to ensure we can be competitive in the national spectrum market. Time after time, we have invested significantly in order for the Rogers network to stay competitive with the Belus network. However, the proposed cap would prevent Rogers from even having the opportunity to compete for sufficient 3800 MHz spectrum. Without (near) parity, there is no economic way to build out services, particularly outside of urban centres, that all Canadians want.
- E8. As such, if Bell and Telus continue to argue they should be allowed to individually bid for spectrum, then they should be required to independently deploy their own spectrum, even if the Department continues to permit infrastructure sharing. This can easily and certainly be achieved technologically on a going-forward basis. This will still provide Bell and Telus a significant advantage due to their ex-monopoly status but will ensure that vigorous facilities-based competition that served Canadians so well in the 4G era with our world-class networks can be replicated in the 5G era. Otherwise, Canada risks turning into a communications also-ran outside of urban cores, as the economics of the 3500 MHz and 3800 MHz bands means that no challenger network can compete by building enough sites to compensate for a Bell-Telus 2:1 spectrum advantage. If Bell and Telus

oppose having Bell customers access only Bell spectrum, and Telus customers Telus spectrum, it shows that their real desire is simply for the Department to bless a 2:1 spectrum advantage over their primary facilities-based competitor, Rogers.

- E9. Regional service providers will be less impacted by any 3500 MHz and 3800 MHz spectrum asymmetries with the Belus network, owing to their much lower customer bases and the fact that they are not leaders in deploying next-generation communication services. However, Canadian wireless consumers, and the economy as a whole, will suffer the loss of benefits that have come from facilities-based competition between the national Rogers and Belus network. Further, as tight caps would de facto create a single leading national network, regional operators would be further disincentivized from engaging in facilities-based competition themselves, further hurting Canadian wireless consumers and the economy. If the Department still desires to continue providing subsidized, preferential spectrum access to regional operators, it should adopt the proposed 50 MHz set-aside as the much less destructive option to competition between the two national networks.
- E10. Notwithstanding the foregoing, no additional spectrum is needed to be set aside, nor should the Department adopt any auction proposals that would result in a minimum of five operators in every licence area, such as a set-aside and cap. Hard won experience, and billions upon billions in wasted capital, has shown that the Canadian market simply cannot support that many operators even in our largest urban markets. In particular, the Department should not adopt rules that would require at least six operators in rural markets that are challenged with supporting two – or sometimes even one – facilities-based operators. Measures to support the entry or expansion of economically unsustainable operators will simply result in the enrichment of speculators or inefficient spectrum usage, which will ultimately do nothing to close the Digital Divide and provide Canadians living in rural locations with the connectivity options they desire and deserve.
- E11. The proposed tight spectrum caps will also reduce auction competition, which will lower the fair market value that Canadians could receive from such a valuable natural resource. While lower spectrum prices themselves are not a bad outcome, particularly as Canada has amongst the highest, if not the highest, spectrum prices in the world, these benefits will be unevenly distributed. By introducing a previously unannounced tight cross-band spectrum cap, the Department would be creating financial winners and losers. Those bidders who did relatively well and invested significantly in the 3500 MHz auction, such as Rogers, SaskTel, and Xplornet, would pay an overall much higher price for their combined spectrum

than those that acquired less 3500 MHz spectrum. The single biggest financial winner would be Telus (who previously sold most of their 3500 MHz FWA holdings), followed by their network partner Bell. As a result, not only would a tight cross-band cap give the joint Belus network an unassailable technical advantage, but the government would also be directly subsidizing Bell and Telus' spectrum costs.

E12. While Telus and Bell would already be significantly favoured under the proposed cross-band cap, Telus appears to be seeking an even greater subsidization / windfall profits by proposing lower opening prices. Clearly presuming the Department will adopt a tight cross-band cap – a cap they will circumvent following the auction by pooling with their network partner, Bell – Telus (and all other stakeholders) can clearly determine that even should Telus, Bell, Rogers, and the leading local regional operator buy up to the proposed 100 MHz cap, spectrum prices will be set by the fifth bidder. This will either be a smaller regional operator or a speculator, both more than happy to acquire smaller amounts of relatively low-cost spectrum. Telus clearly expects spectrum to go near reserve prices and has proposed levels well below the 3500 MHz auction opening prices in order to maximize their financial benefit. Again, Telus (closely followed by Bell) is poised to be the single greatest financial beneficiary of a 100 MHz cross-band cap even under the proposed reserve prices; adopting Telus' (or any) proposals for reduce opening prices will simply be a direct transfer of wealth from Canadians to Telus' shareholders.

E13. We also continue to recommend the Department implement a “no-head start rule”, as was done in the 3500 MHz band in regard to transition spectrum. Further, the Department should align the start of deployment timelines and the final payment of spectrum fees to this date. These administrative changes will provide clarity to the industry and allow them to direct investments towards network and capacity expansions in the bands that are able to be deployed now, and not in three-five years.

E14. As we highlight in our comments, the Department should move expeditiously to remove the deployment constraints in the 3500 MHz band and revert to the previous operating parameters as defined by SRSP-520, Issue 1. No evidence has been provided in this consultation or within the Radio Advisory Board of Canada's 5G-Radio Altimeter Working Group that suggests that any radio altimeter with even basic filtering would be impacted by a band 550 MHz away. Indeed, this lack of evidence also applies to the 3800 MHz band, which still has a minimum of 300 MHz of spectral separation. As such, the Department should wait until the results of its field trials and investigations are known to determine

whether even temporary constraints are required for the Canadian 3800 MHz band. We support the numerous calls for the Department to take an evidence-based approach and ensure any potential interim coexistence measures are equally applied to both industries, including adopting a sunset date for any limited number of out-dated, technically-deficient radio altimeter models that may exist.

E15. Finally, we again note that the combined 3500 MHz and 3800 MHz frequencies will be the premier band for delivering broadband 5G mobile and fixed wireless services on a wide-area basis in Canada. As such, the 3800 MHz spectrum auction may truly be the last chance for the Department to ensure the current success of Canadian facilities-based wireless competition is fully carried over into the 5G era. While regional carriers continue to grow and innovate, Canada's success in delivering world-class networks with excellent quality and value for wireless consumers is primarily a direct result of effective facilities-based competition between the two national networks, the Rogers network and the joint Belus network. Adopting any tight cross-band spectrum cap that does not account for the anti-competitive spectrum pooling by Bell and Telus is simply tantamount to an end of national wireless facilities-based competition – and all the harms that means for Canadian wireless consumers, business, and the broader economy.

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Introduction

1. Rogers Communications Canada Inc. (Rogers) welcomes the opportunity to reply to comments filed by other parties in response to *SLPB-006-21: Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band*¹ (the Consultation), posted on the Innovation, Science and Economic Development Canada (ISED or the Department) website on February 25, 2022.
2. Reviewing the comments provided by other parties reinforces our view that the proposed 100 MHz cross-band auction cap of the 3500 MHz and 3800 MHz bands (or the “3X00 MHz band”) is grossly anti-competitive for facilities-based competition and **should not be adopted** unless ISED addresses the associated benefits and potential for anti-competitive spectrum pooling within the joint Bell-Telus (Belus) network. Bell and Telus have both expressed a strong preference for this tight cap because this is unfairly beneficial to them. There is no justification why the Belus network should be able to get 200 MHz while the Rogers network, and every other network, is limited to 100 MHz, even accounting for their relative national total wireless customers. While the Department should not adopt any pre-operator cross-band spectrum cap, no such cap below a minimum of 150 MHz should at all be contemplated.
3. In the past, Department has adopted “pro-competition measures” for spectrum auctions in order to support the regional operators that have also indirectly helped the Belus network. The tight cross-band proposal turns this on its head, with Bell and Telus as the primary beneficiaries and regional operators receiving the indirect support. Healthy facilities-based competition in Canada requires having multiple networks striving to offer the best services to all Canadians, urban and rural. A tight per-operator 3X00 MHz cap that does not take into account the realities of the joint Belus network is tantamount to changing Canadian wireless policy to favour a single leading national network. Bell and Telus can pool spectrum into a single radio access network (RAN) giving them cost, quality, and capacity advantages in 5G services that no other network, including Rogers, would be able to replicate.
4. Telus suggests that a tight cross-band cap at 100 MHz or similar would implicitly reserve spectrum for regional players, a position that is blatantly and egregiously self-serving. If, despite all the evidence that such measures are unnecessary, the Department insists on including measures to protect regional service providers (RSPs) from competition for spectrum, ISED’s less harmful 50 MHz set-aside option should be instituted instead of the proposed tight cap. There is no need to

¹ ISED, *SLPB-006-21: Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band* (Consultation); <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11757.html>.

use a tight cap as an implicit set-aside for RSPs when this could be achieved directly with much less distortive effect on competition between the national carriers through an explicit set-aside. However, at the same time, the Department should not increase the set-aside size, nor adopt any other policy that will artificially create a 5-operator outcome where there is no true market demand for such a result.

5. It is telling that Rogers is the single respondent that appears focused on ensuring healthy competition in Canada's wireless market for all potential bidders. Bell and Telus both support the tight 100 MHz per operator cap and never address their long-standing joint network arrangement that includes all spectrum bands available for mobile or flexible use today. Therefore, the proposed tight cap does not impact Bell and Telus in the same way as Rogers. Again, Telus is particularly egregious, in that they are effectively proposing rules to achieve an even greater price reduction for the spectrum than they would gain under ISED's proposed reserve prices and "pro-competition measures". Bell and Telus are both also attempting to have the Department adopt competition rules that would allow their anti-competitive spectrum pooling to move from a current Bellus peak speed advantage to a permanent and absolute 3X00 MHz double-peak speed advantage, as well as unmatched quality and breadth of service offers.
6. Regional operators propose measures that directly benefit themselves, suggesting a tight cap combined with set-asides, which would result in five operators in all markets (urban and rural), regardless of market conditions. Some rural wireless Internet service providers (WISPs) are looking for additional carveouts so they can become a mandated *sixth* operator in deep rural and remote areas. However, they largely ignore the adverse impact on competition between national networks that 90% of Canadians directly (and 100% indirectly) rely on.
7. While we do not agree with ISED's proposed competitive measures, in our comments we have sought to make realistic and practical proposals to implement them in a fair and non-distorting manner, in contrast to the comments from Bell and Telus. Rogers recommends sensible competition measures that will continue to support regional operators (through a 50 MHz set-aside) while also maintaining competition between national networks (no cap). Further, our proposals will likely result in significant costs to Rogers in order to bid competitively against Bell, Telus, and RSPs. We are not proposing the Department adopt or create policies that primarily benefit Rogers. In contrast, implementing the current proposal for a 100 MHz cap (or any similar tight cap) would be wildly anti-competitive, harmful to the Canadian wireless industry, and, unintentionally, penalize Rogers as the single bidder that operates an independent wireless network across the country.

8. Rogers and other RSPs have previously identified the unfair and anti-competitive nature of the Belus joint network. However, the importance of the 3X00 MHz band for 5G and the future of wireless is such that Canadians, who have massively benefitted from facilities-based competition in 4G, simply cannot afford the consequences of a 3800 MHz licensing decision that does not address this issue.

Belus support for 100 MHz cross-band cap

9. Support from Bell and Telus for an unreasonably tight cross-band spectrum cap is clearly and entirely self-serving. The Department should draw no justification for the Consultation's proposed cap from Bell and Telus' support – faux-reluctantly and full-throated, respectively.
10. There are two clear benefits of the proposed cap for Bell and Telus:
- First, the imposition of such a tight cross-band cap will severely limit competition for the spectrum and result in prices that are likely to be much lower than those paid by the national operators in the 3500 MHz auction. Clearing prices will be set by the marginal bids from set-aside eligible bidders. The main beneficiaries of this reduced level of competition in the 3800 MHz auction will be Bell and Telus who, between them, can acquire up to 125 MHz (as a population-weighted average), with Bell being able to buy up to around 52 MHz and Telus up to 73 MHz. This compares with Rogers being limited to acquiring around 41 MHz (again on a population-weighted basis). Bell and Telus will enjoy a massive windfall from lower 3800 MHz prices vis-à-vis 3500 MHz prices. For every \$1 the average price of a 10 MHz is lowered by reduced competition for spectrum, Rogers benefits by \$4 approximately, where Bell and Telus benefit by around \$13.
 - Second, Rogers would be left at a significant disadvantage in competition to provide 5G services due to the difference in spectrum holdings that will result from an excessively tight spectrum cap. Bell and Telus can be completely expected to once again pool their spectrum and deploy it as a single resource in a fully integrated network, including the RAN. In terms of capacity, quality of service and costs of serving customers, it is the joint 3X00 MHz holdings of Bell and Telus that will determine their future market conduct and competitive position. A cap at 100 MHz, or even somewhat higher, leaves Rogers with a permanent and unrecoverable disadvantage relative to Bell and Telus in competition to provide 5G services. The existing spectrum gaps between carriers in 4G have been damaging enough, but at least were moderated by the technology limitation of LTE. However, they will be exponentiated in 5G. Moreover, additional network investment is only a partial mitigation in dense urban areas and is not a viable solution in suburban and rural areas. RSPs will not be similarly impacted, due to their much lower customers/MHz ratio and the

fact that they are not leaders in deploying cutting-edge, higher-speed wireless technologies.

11. We note that Bell, at least, attempts to appear content to simply accept the Department's unintentional but material competitive and financial advantage to Bell and Telus, and the Belus network arising from the tight spectrum cap option, though they may simply be happy to draft Telus' more aggressive positions. Indeed, Telus appears to be looking to further increase their subsidization and financial windfall over the Consultation proposals by recommending lower opening bid prices. With the presumable reduction in auction competition from tight spectrum caps, this would even further unjustly enrich Telus' shareholders. We also are unclear on why Telus would make official comments about "negotiation in a noisy room" and attempting to "provide opportunity for bidders to 'negotiate' settlement" in questions about opening prices and bid increments.² Of course, Bell and their shareholders receive all the associated benefits of the Telus position even if they have not advocated for them directly themselves.
12. Telus also proposes increasing the cross-band cap to 110 MHz – ostensibly to increase the spectrum available to RSPs over the proposed 50 MHz set-aside (i.e., it creates an implicit 120 MHz 3X00 MHz set-aside, instead of an explicit 100 MHz 3X00 MHz set-aside).³ However, the actual effect of this would be, after pooling with Bell, the Belus network would further increase its spectrum asymmetry vis-à-vis the Rogers network and the leading local RSP. Again, Telus' proposals are transparently self-serving, are a clear advantage for themselves and their network partner, Bell, and should be firmly rejected.
13. Finally, we also note that there are approximately 20 non-governmental organizations, business associations, and community groups, groups like the TELUS World of Science Edmonton, that appear to put forward eerily similar positions limited to Telus policy preferences, without critically engaging with them. While Rogers supports all Canadians being able to have their say over important issues like enhancing rural connectivity, we wonder if having these groups simply submitting Telus speaking points, without understanding the actual competitive impacts, helps resolve these challenging policy issues or materially contributes to the development of successful spectrum auction policy.

Tacit coordination between Bell and Telus

14. The 3500 MHz auction showed Bell and Telus once again largely avoiding direct competition with each other for spectrum, contrary to any suggestion Telus makes

² Telus Comments, para 94; Telus Comments, para 146.

³ Telus Comments, para 70.

in their response that they are vigorous competitors against each other for spectrum in a few instances. At most, they contributed to each other's pricing in some large cities. Bell and Telus have acquired spectrum resources in mostly non-overlapping footprints and then combined their spectrum resources in a single network. This behaviour and the pattern of acquisition has been apparent in every auction for last decade. It has also been highly successful, except for the 600 MHz auction, where Bell appears to have failed to achieve its "side of the bargain" by failing to acquire spectrum in its wireline footprint (but still managed to address some of its requirements through a subsequent buy-back of Telus' 600 MHz spectrum in Eastern Ontario).

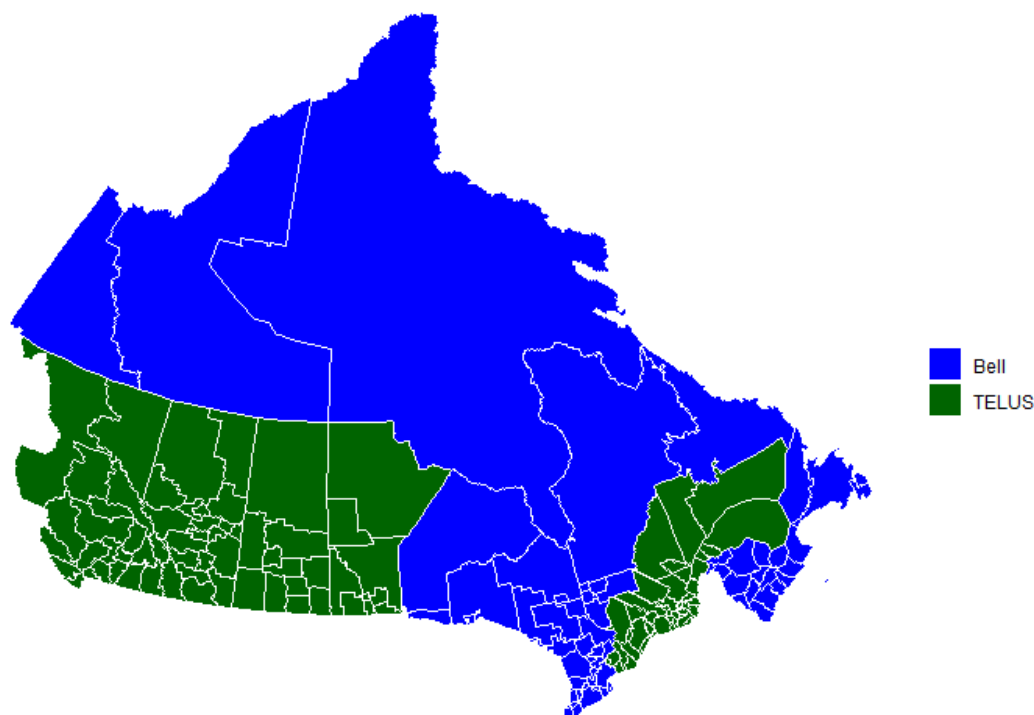
15. As we discuss further below, Rogers is not alone in identifying the anti-competitive impacts of the Belus joint network as a growing problem to Canadian wireless competition. While parties have raised the issue previously, in this Consultation numerous parties of various size, including Comcentric, Ecotel, Iristel, Quebecor, and Sogetel, express concerns about how Bell and Telus' shared RAN allows them to circumvent any auction caps, while Cogeco highlights that the shared Belus network means that Bell and Telus offer national retail services but do not compete for national wholesale services.⁴ Similar issues have been raised in many past consultations on spectrum auctions. It is past time the Department address the anti-competitive impacts of spectrum pooling within the Belus network, otherwise the Department will be effectively signaling their support for a single joint network building an unassailable advantage in the 3X00 MHz band, the global, premier 5G mid-band.
16. The figures below illustrate, quite vividly, where only Bell (blue), only Telus (green) or both (purple) have acquired spectrum in four of the last five major auctions. This pattern clearly demonstrates how the two operators have divided the country along their wireline networks and are sharing spectrum on a regional basis. Therefore, Telus' suggestion that it would be competing equally against both Bell and Rogers in the 3800 MHz auction is entirely without merit.
17. Rogers is not at all suggesting there is any pre-existing plan nor explicit communication between Bell and Telus regarding any specific auction. Rather, the nature of their ongoing shared network, where each partner takes responsibility for their own regional areas (roughly aligned with their wireline footprints) means that no active "collusion" is required; but the very nature of their joint sharing arrangement guides each partner to where they should acquire spectrum and a "quasi-coordinated" outcome organically emerges. This situation appears widely

⁴ Comcentric Comments, para 72; Ecotel Comments, para 87; Iristel Comments, para 62-64; Sogetel Comments, para 74; Quebecor Comments, para 53; Cogeco Comments, para 86.

acknowledged by industry stakeholders and analysts, as the numerous examples in our comments show.

18. The only “exception” to this pattern was 2015’s 2500 MHz auction, where transition holdings and competition rules meant that Telus was able to acquire the maximum amount of spectrum nationwide, while Bell (and Rogers) was largely already at the cap pre-auction. This highlights that Telus are quite happy to acquire spectrum in their network partner’s territory when not in competition with Bell and the spectrum can be acquired without effective auction competition, as the opposite is true (Bell acquiring spectrum in Telus areas). As such, the 3800 MHz auction under a tight cap will very likely see a repeat of the 2500 MHz band, where Bell secures spectrum everywhere and Bell and Telus, though Telus especially, benefits from reduced auction pricing due to limited competition. It will also have the Bell network securing a 2:1 ratio across the country vis-à-vis the Rogers network, just as exists in the 2500 MHz FDD spectrum today. Due to the technical differences between 2:1 2x20 MHz FDD channels and 2:1 100 MHz TDD channels, however, the damage to facilities-based competition will be much, much worse should the Department adopt tight caps and allow anti-competitive spectrum pooling of 3X00 MHz spectrum.
19. Below, we show these organically “quasi-coordinated” outcomes in recent auctions. We use maps with Tier 4 outlines for visual consistency (even though the 700 MHz, AWS-3, and 600 MHz auctions were all conducted at a Tier 2 level and only the 3500 MHz auction was conducted at using Tier 4 licence areas).
20. In Figure 1 below, the figure shows the first example of Bell and Telus effectively dividing the country into spheres of mutual responsibility in 2014’s 700 MHz auction. Telus won additional spectrum in its former monopoly telephone areas of BC, Alberta, and Eastern Quebec. Telus also acquired spectrum in Eastern Ontario, one of the limited areas of where there is sometimes overlap with Bell; it is generally thought that Telus has RAN responsibility for Ottawa but Bell in rural areas. Telus also acquired spectrum in the prairie provinces, as the local lead RAN operator, and Southern Quebec, where both companies have a friendly rivalry for Montreal. Bell won additional spectrum in the rest of Canada, including Ontario, Atlantic Canada, and the Far North, areas of their traditional ex-telephone monopolies.

Figure 1. Belus 700 MHz Auction Results (2014)



Notes: Bell and Telus both acquired 700 MHz spectrum nationally due to competition rules. Figure shows areas where each partner acquired both unpaired blocks. While Bell and Telus were the only two operators to acquire unpaired 700 MHz, each operator only acquired that spectrum in the area where they also acquired lower paired spectrum in the 2014 700 MHz auction, i.e., where they were lead RAN operator. The one exception was in the Far North, where due to reduced demand, Bell secured two blocks of lower band and both unpaired blocks (i.e., lead RAN operator), while Telus secured a single lower block.

21. As is seen in Figure 2 below, the general pattern of the 700 MHz auction was repeated in the AWS-3 auction. Bell acquired all the open spectrum in the Atlantic, Far North, and Northern Ontario, while Telus acquired all the open spectrum from Manitoba westward, as well as Southern and Eastern Quebec and Eastern Ontario. The open spectrum was split in Southern Ontario, which allowed the Belus partners to effectively interlock their package bids in order to shut the Rogers network out of acquiring any AWS-3 spectrum. Again, no direct collusion was required, Bell and Telus were simply able to take advantage of the auction rules that ignored the realities of the shared Belus network to create a “quasi-coordinated” outcome.

Figure 2. Belus AWS-3 Auction Results (2015)

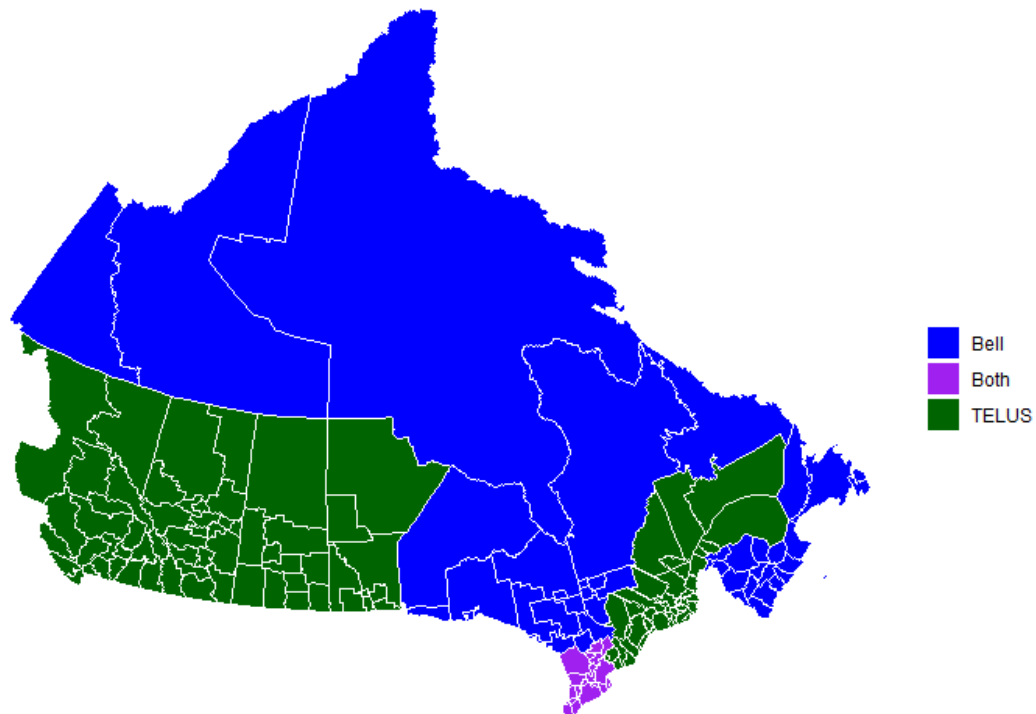
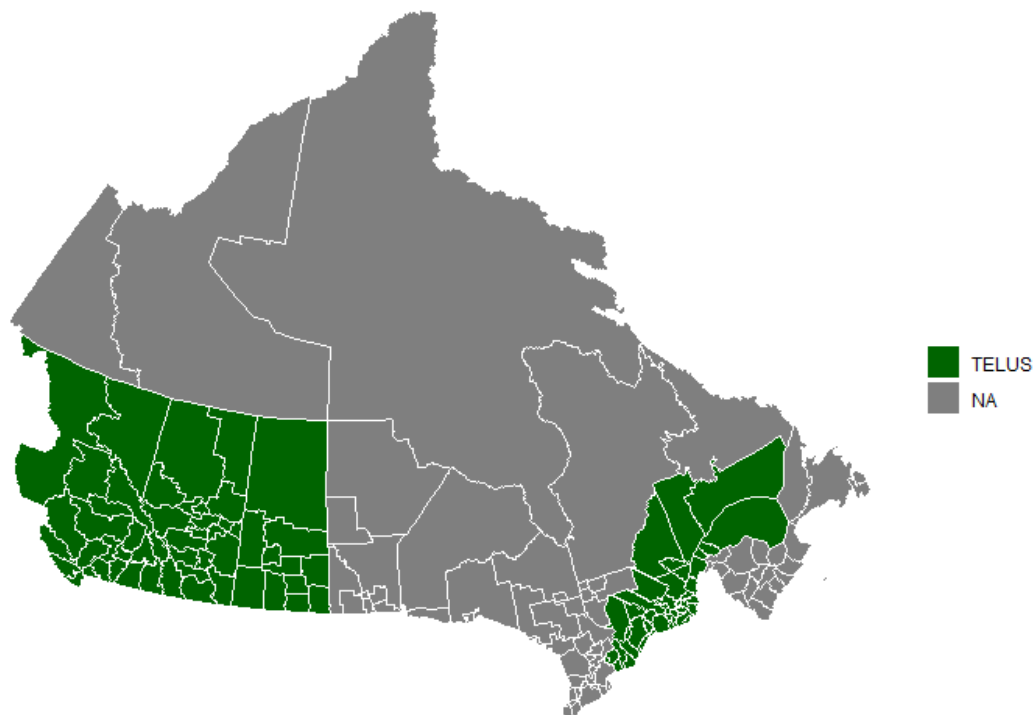


Figure 3. Belus 600 MHz Auction Results (2019)



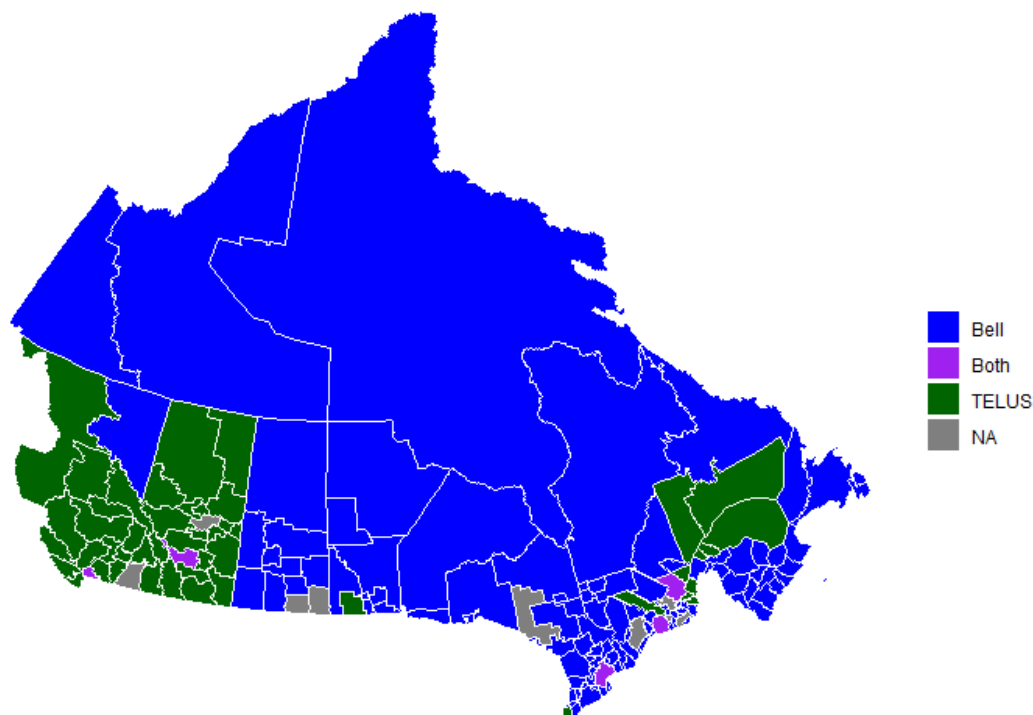
22. The 600 MHz auction, as seen above in Figure 3, shows Telus securing spectrum in its area of responsibility, with Bell being unsuccessful in their bidding strategy. While Bell has publicly stated that they felt they had sufficient low-band spectrum, in reality Bell made bids exceeding \$1.25B in the clock and supplementary rounds.⁵
23. One new development is also apparent from the previous two figures. While Telus had secured spectrum in Manitoba in the 2014 700 MHz auction and the 2015 AWS-3 auction, they did not secure spectrum in Manitoba in the 2019 600 MHz auction. In fact, according to detailed 600 MHz auction bid data, with the exception of Round 3, Telus only ever bid on 4 or 0 lots in Manitoba during the clock stage.⁶ This suggests they never made a real attempt to win any spectrum in Manitoba, as Telus acquired exactly 2 lots in all Tier 2 areas that were in their sphere. Of course, Bell completed its acquisition of MTS in 2017 and thus became the local ex-monopoly telephone operator; as a result, Manitoba changed from being a “Telus-network area” to a “Bell-network area”.
24. Finally, while Telus secured spectrum in 2-06 Eastern Ontario in the 600 MHz auction, they sold this spectrum to Bell outside of the 2-06-001 Ottawa-Gatineau area in 2020.⁷ This supports the view that Telus is responsible for Ottawa within their joint network, but Bell responsible for most of the rest of Eastern Ontario and that a single joint network serves the Belus alliance.
25. In Figure 4 below, the recent 3500 MHz auction results for Bell and Telus are shown. Again, we see the same general pattern of dividing the country along regional wireline spheres. However, as the 3500 MHz auction was at a Tier 4 level, as opposed to Tier 2 for the previous three auctions, the division was more granular. One could hypothesize that Bell acquired spectrum in additional areas, including the western most provinces, in order to help balance out their lack of auction success in the 600 MHz auction. However, as we highlight in our comments and was widely acknowledged by industry analysts, the specific amounts and locations of where Bell and Telus individually acquire spectrum is largely irrelevant, as they will pool their individual 3X00 MHz spectrum in the joint Belus network, just as they have done with all their other spectrum assets.

⁵ ISED, “Bidding Information”, *Auction of Spectrum Licences in the 600 MHz Band*;
http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf11331.html.

⁶ ISED, *Auction of Spectrum Licences in the 600 MHz Band: Auction Results, All Clock Round Bids*;
[https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/600_b_clock_en.csv/\\$file/600_b_clock_en.csv](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/600_b_clock_en.csv/$file/600_b_clock_en.csv).

⁷ ISED, *Transfer of spectrum licences held by TELUS Communications Inc. to Bell Mobility Inc.*;
<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11622.html>.

Figure 4. Belus 3500 MHz Auction Results (2021)



Notes: Only shows open spectrum won by Bell and Telus in the 3500 MHz auction. Both hold transition 3500 MHz spectrum not shown.

26. After a decade and a half of a growing partnership in 3G, 4G, and now 5G technologies, and clear bidding patterns that split the country into spheres of influence, the Department can no longer accept that no formal agreement to share a band before an auction is sufficient protection from anti-competitive behaviour. The combination of existing assets, relative market positions in different regions, and patterns established by previous auctions will surely guide Bell and Telus' bidding behaviour in the next auction and create another "quasi-coordinated" outcome, splitting the task of acquiring spectrum for their joint network neatly between them. If Bell and Telus continue to argue they should be allowed to individually bid for spectrum (which they can certainly do from a 5G technology perspective), then they should be required to independently deploy their own spectrum, even if the Department continues to permit infrastructure sharing.

27. Again, under the proposed tight cross-band cap, Bell and Telus will not need to focus on securing spectrum only within their respective spheres of influence. Instead, it will allow each partner to acquire the maximum amount of 3000 MHz spectrum in all areas of the country to secure their 2:1 spectrum advantage over all

competitor networks, with significant financial rewards over operators that secured relatively – and potentially significantly – more expensive 3500 MHz spectrum.

Tight caps hurt facilities-based competition

28. Telus argues that ISED does not need both a set-aside and a cap, as the proposed cap of 100 MHz will essentially leave more than 80 MHz of spectrum (as a population-weighted average) uncontested by the national operators.⁸ Telus' argument is based on a false premise that the Department's objectives for competition are best met by adopting a tight spectrum cap, and not a set-aside. While Rogers disagrees with ISED that it is necessary to intervene to provide preferential access to spectrum for established RSPs, if the Department is to intervene, it makes no sense to adopt a tight cap as a way of achieving its broader objectives of robust facilities-based competition to benefit all Canadian wireless consumers. If a per operator cap is set to a level that results in a significant implicit reservation for regional operators, this inevitably leads to a distorted position between Bell and Telus on the one hand, who anticipate pooling their spectrum in order to double the effective cap on their joint network, against Rogers on the other. Therefore, competition between the national operators would be grossly distorted if a tight cap is used to create an implicit set-aside.

29. Purely as a matter of sensible and effective policy implementation, ISED's competitive objectives in the 3X00 MHz band – putting aside our disagreement about their reasonableness – would be best met by using a spectrum cap applied at the network level and, if required, a set-aside, or through a set-aside alone. A network-level spectrum cap can provide the preferential access to spectrum that ISED wants for regional players, without significantly distorting competition amongst national operators. This means using any potential cap prudentially, to prevent excessively concentrated outcomes where one network dominates, rather than to create a large enough implicit set-aside (as Telus suggests).

30. Regarding Telus's proposal to slightly relax the cap to 110 MHz, this is based on a bad-faith argument that with a 100 MHz cap the amount of spectrum available for a fifth operator would be limited to 50 MHz, which may be an insufficient amount. Of course, this problem becomes worse with a 110 MHz cap as the spectrum available for a fifth operator could be as small as 10 MHz, a likely outcome completely in many licence areas ignored by Telus (showcasing, again, it is a bad-faith proposal). Further, without measures against anti-competitive pooling, it would allow the Belus network to deploy 220 MHz versus 110 MHz for the Rogers network and the leading RSP. As we highlight in our comments, even if Bell and

⁸ Telus Comments, para 49.

Telus combined had a legitimate requirement for more spectrum in some areas, in aggregate they only have 1.6 times the number of customers and, in some locations, there is effective parity with Rogers. While it is not necessarily the case that a fifth operator will be limited to whatever spectrum remains, there is no case to be made for forcing a fifth operator into every single region (or leaving valuable spectrum unassigned), as would be the effect of the proposed cap.

31. An inevitable consequence of adopting a tight cross-band cap will be a suppression of demand in the auction. If the cap were set at a level where it only suppressed non-winning and non-marginal demand, then this would be of no consequence for the auction outcome. However, if the cap is so tight that it suppresses legitimate demand that would otherwise win or, at least, set prices, then it will change allocations and reduce prices. In this case, the character of the auction is changed from one where the market determines quantities and prices to one where ex-ante regulatory decisions largely determine quantities and prices.
32. It is well understood that in each area where a mobile network (whether operated by a national operator or RSP) has or aspires to have significant market share, it will have demand for at least one full 100 MHz 5G carrier. RSPs, with their much smaller customer bases, can be competitive with much less spectrum but they will certainly have value for amounts up to 100 MHz. Larger networks will have value for spectrum beyond 100 MHz, so as to create a second carrier to support future capacity and future-proof their network as 5G carrier sizes grow. With 450 MHz available across the 3X00 MHz bands and 2-4 networks active in each area of Canada, there is obviously room for 3-4 networks to reach ~100 MHz AND have some networks able to acquire needed additional spectrum.
33. Accordingly, if ISED caps 3X00 MHz acquisition at around 100 MHz per operator, it will unavoidably suppress demand from larger operators running their own networks. This in turn eliminates scope for the market to use the auction to explore the competitive equilibrium in spectrum holdings across networks. An auction with such a tight cap cannot be expected to produce a market price or a market-based allocation. In our view, this would be completely at odds with ISED's role as a "light-touch regulator" which relies primarily on the market and only intervenes to protect material threats to competition and guard against market failure.
34. The impact of a tight cap would also be grossly asymmetric across existing operators, for three reasons:
 - A tight cap discriminates against large operators that have their own networks, such as Rogers and SaskTel, who have substantial market shares and have

legitimate demand for capacity spectrum beyond 100 MHz to support their customers.

- Such a cap advantages operators who have existing spectrum sharing arrangements, especially Bell and Telus, as they can bypass the cap by pooling their 3X00 MHz spectrum. Indeed, such operators are doubly advantaged, because the cap restricts single-operator networks to half as much spectrum, thereby constraining the ability of rivals to expand and reducing incentives to compete for subscribers.
- The cap would disproportionately hurt operators that obtained several licences in the 3500 MHz auction, as those bidders had to pay a (high) market price for most of their spectrum, while advantaging operators who obtained fewer licences, and would now be positioned to buy more spectrum at a much lower, largely administratively determined price.

35. In this context, it is no surprise to anyone that Telus is the most enthusiastic cheerleader for a tight cross-band cap, given the disproportionate benefits it would realize from such a rule:

- The cap will choke off demand from leading rivals in areas across Canada, especially Rogers, SaskTel, and Xplornet, who might otherwise bid for and/or buy more than 100 MHz. This would give Telus a low-cost path to 100 MHz nationwide, including in areas where it opted not to even bid after Round 1 in the 3500 MHz auction, and their joint network partner Bell will also benefit.
- Amongst the three national operators, Telus spent the least in the 3500 MHz auction, only \$1.9B versus \$3.3B for Rogers. Telus has the relatively least amount of 3500 MHz, with the exception of Edmonton, where their legacy holdings and a licence transfer got them to 100 MHz in a major market prior to the start of the 3500 MHz auction. It should be noted that Telus had less transition 3500 MHz spectrum available to them as they sold most of their FWA holdings following ISED's decision to make the 3500 MHz band available for mobile. Therefore, if ISED adopts a rule that suppresses competing demand, Telus has the most to gain from lower prices. In effect, ISED would be handing a uniquely large subsidy to Telus.
- Telus likely anticipates that any cap will not impose any meaningful usage constraints on themselves because they (and all other industry observers) expect to pool spectrum with Bell through their joint Belus network. This gives Telus and Bell a path to 200 MHz bandwidth, twice as much as any rival network. Even better from Telus' perspective, the cap would obviously constrain

Rogers and all RSPs with single-operator networks to half the spectrum of the Belus network.

36. Again, the same Telus advantages also apply to Bell, albeit it would be marginally more constrained in the 3800 MHz auction (thereby diminishing its ability to re-balance spectrum within the joint Belus network after the 600 MHz auction) and get a slightly smaller financial gain. This no doubt explains why Bell also supports the 100 MHz cap, even if it is less forthright in its enthusiasm.
37. The Department clearly must see the support of the Belus operators for a 100-110 MHz cap in this context. They presumably anticipate that the cap offers them an exceptionally enticing combination of benefits, including low non-market prices and an unreplicable spectrum advantage for their joint network relative to Rogers.
38. ISED should also understand Rogers' preference for no cap or at least a 150 MHz cap (if any) in this context. We want a higher cap not just because we have legitimate pro-competitive value for more spectrum, but also because we need to acquire enough spectrum to be competitive with the Belus joint network in terms of speed, capacity, and cost structure.
39. The best solution to this problem would be for ISED to require Bell and Telus to deploy their 3X00 MHz spectrum holdings separately as separate radio access networks (even if traffic is still carried on a joint network behind their RANs). ISED could still permit the sharing of sites and even equipment but have Bell customers served by Bell primary spectrum and Telus customers served by Telus primary spectrum. That would put them on a more level playing field with all other operators, who would then only need to bid for spectrum to be competitive on quality and cost with Bell and Telus individually, as opposed to the combined Belus network. If ISED does not do this, it must set either a higher cross-band cap (≥ 150 MHz) or no cap, so as to at least allow other operators the opportunity to compete for a competitive spectrum position vis-à-vis Belus in each area.
40. Rogers also notes that there is no equal opportunity partner for other carriers to explore for similar facilities-based sharing deals. The Belus arrangement appears globally unique in allowing the second and third largest operators, both previously national operators, to combine networks and reduce facilities-based competition and deployments. Regional operators are continuing to build out their networks, now expanding beyond urban centres to suburban and additional secondary markets. However, they do not have comparable wide-area facilities that Bell and Telus both have in nearly every province, built with nearly a century of monopoly rights and protection.

Understanding the potential price advantage for Belus of 100 MHz cross-band cap is adopted

41. ISED has an established track record of intervening in spectrum markets to support RSPs, adopting rules that enable them to buy spectrum at prices well below the price available to national operators. However, it has never previously adopted rules that would obviously favour one national operator over other national operators, and indeed over some RSPs. This is what will happen if ISED adopts a cross-band cap of 100 MHz or 110 MHz. Belus (particularly Telus) will go from indirect beneficiaries of auction policy to primary beneficiaries, with RSPs regulated to being indirect beneficiaries.
42. To illustrate our point, consider a hypothetical but plausible scenario where the three national operators all buy up to a 100 MHz cross-band cap, while RSPs share the remaining spectrum. In such a scenario, suppose that RSPs quickly find an equilibrium of the effectively reserved spectrum in all areas, such that prices settle at or close to reserve price in all areas. The impact on allocation and prices is set out in Table 1. Observe that the Belus network can buy an average of 127 MHz nationwide, compared to only 42 MHz for Rogers. Consequently, if the spectrum sells at reserve price, Belus would be able to get to 200 MHz nationwide at a \$/MHzPop for auctioned spectrum of only \$0.80, compared to \$1.43 for Rogers. Telus does particularly well, picking up its share of the Belus spectrum at an average auction price of \$0.71/MHzPop.

Table 1: Auction spend with 100 MHz cross band cap if 3800 MHz sells at opening prices

	TOTAL SPECTRUM (MHz)				TOTAL AUCTION SPEND (C\$)			
	Transition	3500 Auction	3800 Auction	TOTAL	3500 Auction	3800 Auction	\$/MHz/pop 3500 Auction	\$/MHz/pop Cross-Band
Rogers	30.5	28.0	41.5	100.00	\$3326m	\$173m	3.38	1.43
BELUS	37.2	35.8	127.0	200.00	\$4022m	\$566m	3.22	0.80
Bell	28.8	19.3	51.9	100.00	\$2074m	\$221m	3.06	0.92
TELUS	8.4	16.5	75.1	100.00	\$1947m	\$345m	3.37	0.71
All Others	21.3	47.4	81.3	150.00	\$1564m	\$429m	0.94	0.44
TOTAL	126.2	147.0	376.7	450.00	\$8911m	\$1734m	1.73	0.58

43. Telus is quite transparent in its efforts to try to engineer an uncompetitive auction. On top of the Consultation's already pro-Belus tight cross-band cap option, Telus further proposes tweaking the cap upwards to 110 MHz, significantly reducing opening bid levels and adopting small bid increments in early rounds, proposals

that all appear engineered to increase their potential benefits. In **Error! Not a valid bookmark self-reference.**, we explore a scenario where ISED adopts all of Telus' recommendations, national operators again buy to the cap and the RSPs share the effectively reserved 120 MHz at reserve price. In this case, all the national operators benefit from lower prices, but observe that Belus' costs are reduced from \$0.80 to \$0.64 per MHzPop, and Telus auction cost declines to only \$0.56/MHzPop, which is only 9 cents higher than the discounted price for RSPs.

Table 2: Auction spend with 110 MHz cross band cap if 3800 MHz sells at Telus-proposed opening prices

	TOTAL SPECTRUM (MHz)				TOTAL AUCTION SPEND (C\$)			
	Transition	3500 Auction	3800 Auction	TOTAL	3500 Auction	3800 Auction	\$/MHz/pop 3500 Auction	\$/MHz/pop Cross-Band
Rogers	30.5	28.0	51.5	110.00	\$3326m	\$33m	3.38	1.20
BELUS	37.2	35.8	147.0	220.00	\$4022m	\$100m	3.20	0.64
Bell	28.8	19.3	61.9	110.00	\$2074m	\$40m	3.06	0.74
TELUS	8.4	16.5	85.1	110.00	\$1947m	\$60m	3.37	0.56
All others	21.3	47.4	51.3	120.00	\$1564m	\$47m	0.94	0.47
TOTAL	89.0	111.2	89.0	450.0	\$8911m	\$179m	2.28	1.29

44. Given these hypothetical but plausible outcomes, ISED needs to consider the impact on competition of embracing a tight cross-band cap given the potential for such intervention to produce huge disparities in spectrum and prices paid for spectrum between networks. Bell and Telus have a network share arrangement which already gives them a unique cost advantage over Rogers and the RSPs when deploying spectrum. ISED will only deepen this competitive divide if it selects rules that allow Belus to jointly buy more spectrum and do so at a huge price discount relative to Rogers. This would be the very opposite of a level-playing field. To prevent such an outcome, ISED must either require Bell and Telus to deploy their individual holdings of 3X00 MHz spectrum separately, or at least set any cross-band cap sufficiently high (i.e., ≥ 150 MHz) that there is scope for competition in the auction to determine allocation between networks and set market prices.

Legitimate expectations set by the 3500 MHz auction

45. As evidenced above, had bidders known in the 3500 MHz auction that such a tight cross-band cap would be introduced this would have certainly affected bidding behaviour in the first auction. It would have likely moderated demand for larger amounts of spectrum and may well have reduced competition and lowered prices.

The Department is, unintentionally, proposing to retroactively penalize Rogers, Xplornet, and SaskTel, all who had a relatively successful – but costly – 3500 MHz auction to provide, again unintentionally but clear, competitive and financial support to Telus and Bell.

46. Rogers and other stakeholders in the 3500 MHz process repeatedly raised the issue of the interaction between the 3500 MHz and 3800 MHz auctions during the consultation. As such, we completely agree with SaskTel that if a spectrum cap across both auctions were to be used, it should have been announced before the 3500 MHz auction to allow bidders to take this into account in their bidding behaviour.⁹ ISED explicitly did not adopt or announce any such measure for the 3500 MHz auction, despite being invited to do so by respondents in the 3500 MHz consultation. Therefore, ISED has established an expectation that bidders in the 3500 MHz would not subsequently face significant restrictions in the 3800 MHz auction that would have been relevant to their bids in the 3500 MHz auction.
47. Stakeholders now find themselves in a situation in which ISED is proposing an extremely tight cross-band cap after the fact, clearly at odds with the expectations the Department created through its 3500 MHz licensing decision. As we set out in our comments, this cap is exceptionally tight and unprecedented by international standards. In addition, the amounts of spectrum won in the first auction vary by operator and by area, creating a situation where the effect of this extremely tight cap will create asymmetric windfalls across different operators and undoubtedly colour views of respondents about the cap in this consultation, as explained above. If the Department is proposing to subsidize some bidders against their competitors, why would the windfall winners argue against their own financial interests, even if it is a poor outcome for Canadian wireless consumers?
48. However, the die is not cast. The Department does not have to or need to adopt the proposed tight cross-band cap. The Department could also more generally address anti-competitive spectrum pooling, both for the 3X00 MHz band and for future spectrum awards. Should the Department desire to provide additional support for RSPs, the 50 MHz set-aside and Tier 4 licence areas will help both large and small RSPs – as was demonstrated in the 3500 MHz auction.

RSP arguments for increased set-aside

49. Many RSPs arguments for a larger set-aside make no sense from a public policy perspective, given that these respondents support the combination of a set-aside with a tight cross-band cap. Increasing the set-aside to 100 MHz (or larger) while

⁹ SaskTel Comments, para 78.

at the same time imposing such a cap means that even competition for set-aside spectrum will be restricted, given that most serious bidders will already hold spectrum in the 3500 MHz band. Large RSPs appear to be arguing for conditions within the auction that will allow themselves to secure 3800 MHz near the set-aside reserve prices in most areas in order to obtain 100 MHz of 3X00 MHz spectrum. Small RSPs appear to be looking to secure a lesser amount of 3X00 MHz spectrum, potentially for speculative purposes. Many of them propose auction rules that would require **six** operators in rural and remote areas, areas where the economics make it challenging for two, and sometimes even one, local broadband provider without significant support from the public sector.

50. As we detail in our replies below, small RSPs were successful in the 3500 MHz auction (with no caps and a 50 MHz set-aside). The Department has also continued to make more and more spectrum available on a licence-exempt or lightly-licensed basis that is an excellent alternative for RSPs looking to support fixed wireless services in deep rural and remote areas. Further, these bands continue to develop robust ecosystems that will support the types of services that Canadians are demanding. There is no need to mandate the entry of unsustainable competition that will misallocate resources and delay getting spectrum to those operators with sustainable business cases and the scale to invest in advanced network infrastructure. The Department should not increase the set-aside beyond the proposed 50 MHz.

Canadian Spectrum Costs

51. As we have highlighted above, an unintended by-product of the Department's proposed tight cross-band spectrum cap is a likely reduction in auction competition, and thus spectrum costs. Numerous stakeholders and industry analysts have long highlighted that Canadian spectrum prices are amongst, if not the, highest in the world. We have also noted that this cost burden 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. While we support lower spectrum costs, this must be done fairly, and it should not unduly benefit some bidders. In particular, there is no justification for the Department adopting "pro-competition measures" that provide a direct financial benefit to Bell and Telus vis-à-vis Rogers. Presumably, Xplornet and SaskTel feel the same way about the Department providing financial benefits to their RSP competitors.
52. For absolute certainty, the relative spectrum shortage resulting from the proposed tight spectrum cap more than outweighs any benefit from lower prices. Further, both aspects would be market distorting and anti-competitive, hurting all Canadian wireless consumers in the long run.

Coexistence with aeronautical radionavigation systems

53. To date, no evidence on the public record shows that equipment with even the most basic filtering one would expect in consumer grade equipment, let alone equipment that Canadian public safety relies on, should be impacted by the original operating parameters as defined by SRSP-520, Issue 1. There is at least 550 MHz separation between the Canadian 3500 MHz band and the radio altimeter band. As such, the Department should move expeditiously to remove the constraints in the 3500 MHz band. The Department should also continue their work to determine whether even temporary constraints are required for the Canadian 3800 MHz band due to the minimum 300 MHz of spectral separation. We recommend the Department continue to work with Transport Canada to ensure that any potential coexistence measures are equally applied to both industries, as the aviation industry should not be rewarded for continuing to rely on decades-old technology in radio altimeters, particularly models that do not include any filtering whatsoever.
54. Rogers stated its position on all of the issues raised in the Consultation in its comments of February 15, 2022. The rest of this reply is limited to comments on proposals made by other parties. Failure to address any specific issue raised by other parties should not be taken by the Department as Rogers' acquiescence with the position.

Rogers' Reply to Comments of Other Parties

Q1: ISED is seeking comments on its proposal to extend the mitigation measures described in SRSP-520 to protect radio altimeters from flexible use operations in the 3500 MHz band to flexible use operations in the 3800 MHz band (3650-3900 MHz). This extension is proposed until domestic and international studies are completed.

56. Reviewing the 3500 MHz Consultation comments, it is unambiguously clear that the aviation industry continues to rely on, at least publicly, a single theoretical report that unrealistically combined worst-case potential values for every terrestrial input, which effectively “torqued” the results of the study. Further, there has been no public explanation provided as to how Canadian aircraft have been flying into international jurisdictions that have deployed 5G systems without any constraints in the Canadian 3X00 MHz band range (3450-3900 MHz) for years without any reported interference of radio altimeters.
57. While Rogers continues to agree that the safety of Canadians is always of paramount importance, based on all evidence that has been provided to the mobile industry, we do not believe that restrictions are required in either the 3500 MHz or 3800 MHz bands. We strongly urge the Department to continue working with all stakeholders to complete the proposed coexistence field testing prior to the June 2022 transition of 3500 MHz from fixed to flexible use. Further, we fully expect the field testing to show that all well-designed radio altimeters with at least basic filtering will also be able to coexist with the Canadian 3800 MHz band without any undue constraints placed on terrestrial operators.
58. As such, we agree with the large number of terrestrial operators that call on the Department to work with Transport Canada to address any potential coexistence challenges at the source rather than through secondary regulation of a different industry, and direct the aviation industry to replace non-compliant altimeters by a set date, such as December 2023.¹⁰ Further, the Department should introduce any potential mitigation measures that could be required only at the top of 3800 MHz band should credible scientific evidence suggest a need. Any such measures should be time limited, minimally intrusive (applied only where a realistic potential risk to aviation can be clearly demonstrated), and require the aviation industry to use equipment that accounts for a multi-user spectral environment and has a bare

¹⁰ Bell Comments, para 29; SaskTel Comments, para 66; Xplornet Comments, para 56; Telus Comments, para 28.

minimum of basic protection (i.e., filtering) for equipment responsible for public safety.

59. Rogers also believes that the Department should confirm that there are no potential coexistence issues in the 3X00 MHz band, or have the aviation industry work in good faith to resolve any outstanding concerns, prior to taking any action on the consideration of drones in 5030-5091 MHz. As we highlighted in the recent SRSP-520 review, the proposed service would have similar power-levels and comparable distance from the radio altimeter band as the Canadian 3500 MHz band but have all base stations pointed into the sky near airports. We expect the Canadian aviation stakeholders to request that ISED begin investigations into this band, as has been done with the U.S. Federal Communications Commission. The aviation industry should not be rewarded with access to additional spectrum when, to date, it appears that their poor spectrum usage (i.e., lack of filtering) is the sole source of coexistence challenges.

Q2: ISED is seeking comments on its proposal to not identify additional consolidated gateway sites other than those already identified in the 3800 MHz Decision in Weir, Quebec and Allan Park, Ontario.

60. There appears to be broad agreement, or little objection to the Department's proposal to not identify any additional consolidated gateway sites other than in Weir, Quebec and Allan Park, Ontario. Rogers continues to support the proposals, as well as repeating our recommendation the Department work with commercial and government fixed satellite services (FSS) operators to maximize the use of protection measures on earth-stations (e.g., installing filtering) and to do this as quickly as possible, so as to limit potential interference and any constraints on flexible use.

Q3: ISED is seeking comments on its proposal to use Tier 4 service areas for the 3800 MHz licensing process.

61. There is broad support from national and regional operators on the use of Tier 4 service areas for the 3800 MHz auction. Rogers continues to view Tier 3 licence areas as the best option in a greenfield mobile band with similar propagation characteristics but that using Tier 4 in the 3800 MHz band is appropriate due to legacy issues in the 3500 MHz band. However, we agree with Quebecor's

observation that use of Tier 4 licence areas should not set a precedent for Tier 4 in future auctions,¹¹ particularly for mid-band spectrum.

62. The Department should also continue to reject proposals to license the 3800 MHz band at smaller than a Tier 4 level, which was primarily limited to a few remote fixed wireless operators. As Rogers has previously identified, Tier 5 service areas should absolutely be restricted to frequencies above 6 GHz for all primary, exclusive licensing processes, and likely mmWave bands and above, until better coordination tools and advancements in technology make interference mitigation technically and economically feasible in low and mid-band spectrum.
63. While Rogers strongly opposes auctioning 3800 MHz Tier 5 licence areas anywhere, Cogeco's proposal of only using Tier 5 in metro areas is highly impractical and would expose bidders to fragmented spectrum allocations and high coordination costs. There are very good reasons why Tier 4 areas for major urban centres include the entire metropolitan area, which is to avoid having licence area boundaries that cut through densely populated areas. This is highly relevant for all mid-band frequencies, including 3800 MHz, where signals can travel significant distances in an urban environment. As the study commissioned by Cogeco points out, there are techniques for mitigating cross-boundary interference in challenging locations, such as the Windsor/Detroit border.¹² However, the key point that Cogeco omits in its response is that these measures are costly to implement, require significant engineering time, and may result in reduced quality of service in boundary locations, and so should be avoided wherever possible.
64. Indeed, as the Department is fully aware, the Windsor/Detroit area has seen an extremely challenging mid-band coordination problem that has been ongoing for years – something Cogeco will experience first-hand when/if they actually deploy their spectrum in the area. Such complex coexistence challenges may be unavoidable at international borders but to deliberately introduce such challenges into Canada's largest cities would be an act of extraordinary self-sabotage.
65. Further, Cogeco secured three blocks (60%) of the set-aside Tier 4 spectrum in Toronto in the 3500 MHz spectrum auction.¹³ Cogeco's proposal is clearly without merit and should not be considered further.
66. For potential spectrum seekers looking for access at only smaller than a Tier 4 level, commercial subordination, or any of the significant amount of licence-exempt

¹¹ Quebecor Comments, para 75.

¹² Cogeco Comments, para 16.

¹³ ISED, 3500 MHz Auction — Final Results; <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11722.html>.

or lightly-licensed spectrum the Department has made available are more appropriate than the 3X00 MHz spectrum. Indeed, since the 3800 MHz comment deadline, the Department has launched a consultation to make another 45 MHz available for indoor and outdoor RLAN usage in the 5 GHz band (5150-5850 MHz).

Q4: ISED is seeking comments on its proposal to implement pro-competitive measures in the 3800 MHz auction.

67. Rogers is concerned that almost all parties took the Department's proposal to implement "pro-competitive measures" to mean the 3800 MHz licensing framework should take measures to support their specific competitor class, or, "better yet", their individual company, and not consider any broader anti-competitive impacts on all Canadian wireless consumers. In particular, any general support for a tight cross-band cap is ultimately very self-interested and demonstrates either a willful ignorance or deliberate obfuscation of what really matters when it comes to spectrum policy's impact on wireless competition.
68. The proposals are not "pro-competition" but are anti-competition, or, more accurately, Belus-competitive-support. Instead of addressing the policy failure of 2008 and 2009, which allowed the second and third largest operators to no longer engage in facilities-based competition but instead launch a joint national network that has no precedent in any peer jurisdiction, the policy direction in the Consultation appears to double down and provide as much support for Bell and Telus as possible (albeit, without being explicit about it). In the past, Belus was an indirect beneficiary of auction policies explicitly designed to support new entrants and large RSPs; in this Consultation, RSPs will be the indirect beneficiaries of policies directly supporting Telus and Bell.
69. As we highlight in our comments, it is unreplicable disparities between the national networks, Rogers and Belus, that have the greatest potential to weaken facilities-based competition and destroy its benefits for Canadians. Canadians in all regions currently have access to world-class mobile voice and broadband data services due to the facilities-based competition between national operators and the Department must ensure that competition can continue. In order to gain the benefits of two comparable national networks engaged in vigorous competition, the essential point is that networks be of equal quality. However, Rogers will not be able to build our way out of large 3X00 MHz spectrum asymmetries with the Belus network, as the economics of denser cells are challenging within urban areas – and impossible in suburban and rural areas. The 3800 MHz auction is perhaps the Department's last

chance to set effective competition policy for the 5G era. The unintentional consequences of adopting a simplistic-but-deeply-flawed 100 MHz per cross-band cap policy, regardless of any decision on set-asides, will result in Canada not being able to replicate the facilities-based success of our world-class 4G wireless networks.

70. Bell and Telus, as expected, support measures that will result in them effectively ensuring that their joint network will have twice as much 3X00 MHz spectrum as any other network, which could kill 5G facilities-based competition outside of urban cores. Indeed, it is telling that Bell, who continues their tradition as an opponent of any “pro-competitive measures” for auctions,¹⁴ prefers a tight operator-based spectrum cap in response to Q5. Large RSPs, again as expected, promoted increasing a set-aside to maximize their ability to acquire substantial amounts of heavily subsidized spectrum. Small RSPs focused on deep rural and remote areas argue that ISED needs to interfere in the market to guarantee 3800 MHz spectrum for five or more operators in areas that are challenged to support two or even one facilities-based networks. The two regional operators that already hold significant 3500 MHz spectrum, Xplornet and SaskTel, recommend set-asides without caps to ensure they can get further additional subsidized spectrum. However, none of the large nor small regional operator proposals do anything to address the competition between national networks that all Canadians, and the broader economy, rely on to drive technology advancements and enhanced consumer value.
71. While Rogers does not agree with the Department’s views about the need for active intervention to shape the market, we have made simple recommendations that can achieve all of the Consultation’s stated objectives in a reasonable and fair manner. We have looked to ensure the Department’s four operator objective is met, through a 50 MHz set-aside, while also ensuring that Canadians have the potential to benefit from meaningful facilities-based competition between the two national networks. Notably, Rogers has not proposed rules that guarantee itself abundant, low-cost spectrum as a result of regulatory fiat. Rogers is simply requesting the opportunity to try to effectively compete for 3800 MHz spectrum against its main rivals, Bell and Telus and their shared network. In contrast, Bell and Telus’ support of a tight cap and against set-asides is entirely self-serving. The proposed cross-band cap would be detrimental to the main source of facilities-based competition in Canada, hurting urban and rural wireless consumers and fundamentally unfair to Rogers.

¹⁴ Bell Comments, para 34.

72. Indeed, Telus' call for lowered opening prices linked with their support for a cross-band cap of 110 MHz would only increase the potential network advantage for the Belus network (220 MHz for Belus versus a maximum of 110 MHz for their facilities-based competitors), while also providing an even greater financial windfall for Telus through the presumed reduced 3800 MHz auction competition. As such, Telus' recommendations are easily the most egregiously self-interested from both a financial and anti-competitive perspective. When combined with their efforts to get allied business and community organizations to provide input to a spectrum consultation supporting Telus' commercial interests, it should be setting-off alarm bells in the Department that the 100 MHz cap is not in the interest of Canadians. Further, as the evidence in our comments shows, the proposed tight cap is quite out of line of international comparisons of peer countries when accounting for the amount of spectrum available and the outlier impact of the joint Belus network.
73. Bell stands to reap nearly as large a financial windfall from Telus' proposals, and gain equal network advantages due to the joint Belus network. When either party "attacks" the other in consultation processes, or makes slightly different arguments, that simply allows them to continue to never acknowledge their deep and ongoing mobile network sharing arrangement. Whether Bell or Telus' arguments carry the day, Belus remains the real victor, with national facilities-based competition and the benefits it brings to Canadians the real loser.
74. We are not suggesting that Rogers' recommended pro-competitive measures are altruistic to the point of disregarding our own business interests. Our strong recommendation against the proposed tight cross-band cap does not effectively guarantee Rogers substantial spectrum but, rather, simply provides an opportunity for us to compete fairly. Our proposals to prevent anti-competitive pooling of spectrum would equally apply to Rogers, ensuring network competition between the national operators is not wildly asymmetric. We remain committed to vigorously competing in the market against both Bell and Telus, as well as regional operators. If the Department ultimately adopts such a tight cap and refuses to publicly acknowledge the anti-competitive impacts of the Belus network, facilities-based wireless competition outside of urban centres will be irreparably harmed.
75. As we highlight in our comments, Rogers is not the only operator to identify the anti-competitive impacts of the Belus joint network. Increasing numbers of stakeholders are calling on the Department to address this critical issue. In their comments, Comcentric, Ecotel, Iristel, Quebecor, and Sogetel all express concerns about how Bell and Telus' shared RAN allows them to circumvent any auction caps, while Cogeco highlights that the shared Belus network [effectively combined regional RANs based on historical wireline areas] means that Bell and Telus offer

national retail services but do not compete for national wholesale services.¹⁵ More specifically, they do not compete against each other.

76. We also again acknowledge that under the Department's tight caps, spectrum prices could be lower than the 3500 MHz on a \$/MHzPop basis. They would be even lower still under Telus' proposal to lower spectrum prices to enable themselves to secure relatively large amounts of 3800 MHz spectrum at whatever price marginal bidders were willing to pay. This would include speculators looking to acquire 3800 MHz spectrum and flip at the end of the transfer moratorium, ideally (for them) without ever having invested in any network infrastructure. Any short-term benefits to operators (primarily Telus and speculators) from asymmetrically lower 3800 MHz auction prices would not outweigh the long-term harms arising from the relative spectrum shortages resulting from the proposed cap and anti-competitive pooling.
77. The Department must treat competition issues across the entire wireless industry seriously. The proposed 50 MHz set-aside, combined with Tier 4 licence areas, means that all RSPs – large and small – will have the opportunity to secure more than sufficient, subsidized spectrum in their operating regions. If the Department elects to continue ignoring the market-distorting impacts of the Belus joint network, it must not introduce tight caps that provide asymmetric advantages to Bell and Telus and them alone. Canadians cannot afford a 3800 MHz licensing policy that ignores the realities of competition between the national networks and the pernicious impacts that anti-competitive spectrum pooling in the 3800 MHz band could create. Should the 3800 MHz auction not properly lay the groundwork for mid-band facilities-based competition, it is difficult to see what policy levers the Department will have at its disposal to course correct and the future of facilities-based competition for 5G networks outside of urban cores and isolated private networks looks very grim indeed.

¹⁵ Comcentric Comments, para 72; Ecotel Comments, para 87; Iristel Comments, para 62-64; Sogetel Comments, para 74; Quebecor Comments, para 53; Cogeco Comments, para 86.

Q5: If adopted, ISED is seeking comments on three proposals for pro-competitive measures in the 3800 MHz auction. Three options are proposed:

Option 1: a 50 MHz set-aside

Option 2: a 100 MHz cross-band cap across the 3500 MHz and 3800 MHz bands or

Option 3: a 50 MHz set-aside and 100 MHz cross-band cap across the 3500 MHz and 3800 MHz bands

78. No evidence was submitted, nor any credible argument made, that the proposed, “pro-competitive measures in the 3800 MHz auction”, particularly the proposal for a tight 100 MHz cross-band cap, does anything more than create a superficial appearance of being pro-competitive. In fact, tight caps would be deeply anti-competitive, greatly skewing competition amongst the two national networks (Rogers and Belus). The key thing that all companies that support the proposed cross-band cap have in common is that they underperformed in the 3500 MHz auction, so they stand to benefit disproportionately if demand and prices are suppressed by a tight cap and, of course, the Belus network receives an additional “bonus” of access to at least twice the spectrum of any other company.

79. The companies that oppose the 100 MHz cap are the ones that were relatively successful in the 3500 MHz auction. Rogers, Xplornet, and SaskTel all make the case that we should be allowed to buy more than 100 MHz and have a business case to support this. They also point out the unfairness of rules that that would predictably hand out cheaper spectrum to bidders that underperformed at 3500 MHz, while handicapping bidders that invested heavily in spectrum. What makes this particularly egregious is that ISED concluded that no spectrum cap was necessary (and even allowed bids that could and did lead to bidders acquiring more than 100 MHz in some areas) in the first auction, despite consultation responses including suggestions for a joint cap across both 3500 and 3800 MHz. The Department, however, gave no indication that it would consider such a tight cap for the 3800 MHz auction. Almost certainly, bidders would have bid differently if they had anticipated such a cap, meaning that allocation might have been different and prices lower. The time to implement such a cap was prior to the 3500 MHz auction, not after it. Introducing one now unfairly and arbitrarily rewards some wireless carriers while punishing others.

80. As noted above, and as we predict in our comments, the proposed 100 MHz cross-band cap is particularly attractive option for Bell and Telus, as it would limit Rogers

to 100 MHz, whereas it could allow Bell and Telus to acquire and aggregate up to 200 MHz without facing strong competition. Telus has been publicly advocating for just such an outcome through their public policy advertising for some time, though this appears to be a public shift in Bell's position, long a strong advocate of no competition measures whatsoever. While Bell indicates they still recommend no competition measures, they state a preference for Option 2 of the Consultation proposal, predicated as solely on reducing the distortive impacts that set-asides can have on spectrum pricing.¹⁶ While we agree that well-designed spectrum caps can generally be less distortive than set-asides, this is not the case in Canada given the Belus joint network. The proposed tight operator cross-band auction cap will not stop Bell and Telus from combining all their 3X00 MHz spectrum following the 3800 MHz auction. This will be much more distortive and damaging to the Canadian wireless market than the proposed 50 MHz set-aside.

81. One can only speculate as to the true reasons for their support of Option 2, but it may be the fact that the auction dynamics suggest that 3800 MHz prices are likely to be unevenly (and anti-competitively) low, given limited competition caused by the cap. Being able to have secured an effective 2:1 3X00 MHz spectrum ratio through anti-competitive spectrum pooling for the Belus network vis-à-vis all other networks by itself would be extremely desirable for Bell and Telus. A cross-band cap of 100 MHz without any measures to prevent anti-competitive spectrum pooling will result in a de facto handout of subsidized spectrum to Bell and Telus, which makes it even better. It is unclear what possible benefits to Canadian wireless consumers and businesses could come from such an anti-competitive outcome. It would simply be a highly visible failure for the auction process and Canadian mid-band 5G wireless policy.
82. It is also clear that RSPs that are requesting a larger set-aside in combination with a tight cross-band cap are simply looking to reduce the competition, and thus the price, for "their" 100 MHz of spectrum. Increasing the 3800 MHz set-aside to 60 MHz, 100 MHz, or larger, while at the same time imposing such a tight cap means that competition for set-aside spectrum will be restricted given that most serious bidders will already hold spectrum in the 3500 MHz band. Again, this appears to benefit individual bidders but would be a net negative for Canadian consumers.
83. We also highlight that the 3500 MHz auction rules were sufficient for the entry of two small RSPs, seemingly participating in their first spectrum auction. Thomas Communications and Valley Fiber both secured spectrum in multiple licence areas. The proposed 50 MHz set-aside will allow them to bid for additional spectrum in

¹⁶ Bell Comments, para 49.

those licence areas, plus compete in additional licence areas. This is clear evidence that small rural operators that have an actual business case can secure spectrum. In addition, a number of mid-sized regional operators like Sogetel and Iristel secured 3500 MHz spectrum in a number of licence areas, as did private network operator Ecotel. Larger RSPs were also able to secure spectrum in many licence areas. Cogeco added additional spectrum licences to their growing portfolio of (undeployed as of yet) exclusive spectrum licences, while Videotron was able to leverage ambiguous eligibility rules to secure set-aside spectrum across western Canada.

84. While the proposed cross-band cap is clearly a poor long-term competition policy option, it would also serve poorly from an auction implementation perspective. Due to legacy services, the 3X00 MHz band is significantly encumbered. Numerous 3500 MHz licence areas are sub-divided geographically or contain protected grid-cell licensees, some with very significant impacts. For example, under a straight cap, a bidder with just 20% of pops covering 40 MHz spectrum would de facto be capped at acquiring 60 MHz cross-band for the remaining 80% population, which is obviously unfair and bad policy. It would be particularly unfair on bidders who acquired encumbered spectrum in the auction, given ISED did not flag the possibility of a tight cross-band cap at the time. In addition, the 3800 MHz band will have 43 encumbered areas, some with very significant and still unknown impacts, which would further challenge the implementation of a cap.

85. As SaskTel point out in their response, ISED could alternatively exclude all encumbered 3X00 MHz spectrum from the cap.¹⁷ However, this just introduces the opposite problem, with bidders with encumbrances – however small – having a guaranteed path to circumvent the cap for a proportion of an area's population. Either way, a cap will distort incentives for the timing and pricing of secondary market transactions aimed at defragmenting encumbered frequency blocks. The better solution is either not to use cross-bands caps at all, or at least set caps high enough (e.g., a minimum of 150 MHz) such that they do not prevent bidders with encumbered spectrum from having the opportunity to secure at least 100 MHz of clean area-wide spectrum. In the event that ISED adopts the materially flawed and anti-competitive proposed 100 MHz cap – which it should not – then we agree with SaskTel that all encumbered spectrum in both the 3500 MHz and 3800 MHz bands must be excluded from calculating a participant's holdings.

86. Based on the Consultation's proposals and our review of other stakeholders' comments, Rogers makes the following pro-competition observations:

¹⁷ SaskTel Comments, para 89.

- i. Rogers does not support a tight cross-band cap but if one is adopted it must be applied at the network level, not just the operator level, and enforced for a minimum period of 5 years following the initial protection timelines (i.e., 2025-2030). In their responses, Bell and Telus attempt to make the case that they are buying spectrum for their own use and argue for caps that shield them from competition from each other and from Rogers. If ISED decides to accept such an obvious fiction, it must come with a commitment that they will maintain and deploy their spectrum separately (even if they continue to share other network elements).
- ii. We reiterate that if Bell and Telus (or any other network share partners) are allowed to combine 3X00 MHz spectrum without limit, then a 100 MHz cross-band cap would predictably lead to a highly asymmetric allocation, with the Belus network enjoying a 2:1 advantage in 3X00 MHz spectrum over all rivals. This would be a disaster for competition. If Bell and Telus' support for a 100 MHz cap turns out to be conditional on an expectation that they can combine blocks after the auction, then it should be clear to all that they are simply seeking an undue and anti-competitive advantage.
- iii. Rogers does not believe the Department should adopt any cross-band cap, but if it ultimately elects to do so, it should be a minimum of 150 MHz **per network**. Like SaskTel and Xplornet, we believe that we have a legitimate business case to acquire this level of spectrum in some areas to support our customers, and we should be allowed to test our valuations in the auction. We recognize that if a higher cap was the only competition measure, then a potential outcome is that RSPs could win little spectrum in some markets. That might be the most efficient outcome. However, if ISED considers that is not acceptable from a competition perspective, then it could adopt a maximum set-aside of 50 MHz to support RSPs.

Q6: ISED is seeking comments on alternative options for pro-competitive measures for the 3800 MHz auction.

87. Rogers continues to strongly recommend that the Department restrict anti-competitive spectrum pooling of large proportions of a band through licence conditions for both the 3X00 MHz and all future spectrum licensing processes. Should ISED ultimately determine a cross-band cap is necessary, it should be set at no less than 150 MHz per bidder, which would include any 3X00 MHz spectrum available to an operator, including primary and subordinate licences.

88. As Rogers has shown above, auctioning at a Tier 5 level, particularly in dense metro areas, will cause significant technical deployment challenges that can only be partially mitigated through expensive and inefficient fixes. The Department should adopt its proposed Tier 4 licensing areas.
89. As discussed above in Q5, the Department should not increase the size of the set-aside above the proposed 50 MHz, whether in rural or all licence areas. Small RSPs will already have sufficient protections to access rural and remote spectrum through the use of Tier 4 licensing, as was shown by the success in the 3500 MHz auction. Further, under the Department's proposals, a total of 100 MHz will be set-aside in the 3X00 MHz band on top of the transition 3500 MHz spectrum that a number of RSPs hold. RSPs will already have sufficient subsidized 3X00 MHz spectrum and those looking for even lower cost spectrum in rural and remote areas have numerous options with licence-exempt and lightly licensed bands and their growing infrastructure and device ecosystems.
90. While competition policy clearly shows no need to increase the set-aside, calls to implement an 80 MHz rural cap¹⁸ would be an equally poor policy decision. An 80 MHz cap would result in a minimum of six (6) operators in areas with such tenuous economics that they struggle to have two facilities-based operators, or sometimes even one broadband provider in the most remote areas. Further, reserving significant amounts of spectrum in the global, premier 5G mid-band would seriously hamper the ability of national operators to deploy advanced wireless services in rural areas. Interfering in the market to create the inefficient and unsustainable entry of six operators is clearly not in the best interests of Canadians living in deep rural and remote locations, as even more excessively tight spectrum caps in rural areas would primarily benefit speculators.
91. The Department should also reject proposals to grant any WISP operator in the current WBS band (3650-3700 MHz) indefinite "squatters" rights; nor should they adopt a U.S. CBRS-type licensing mechanism in the current WBS band.¹⁹ The Department has already consulted on the WBS band and decided to nearly double the amount of spectrum in the band. Either of these proposals from parties would limit the ability of operators to form large contiguous blocks and be a poor policy outcome for Canada.

¹⁸ Iristel Comments, para 39; BCBA Comments, pg 3; CanWISP Comments, para 34.

¹⁹ Ecotel Comments, para 44; NTT Comments, pg 3.

Q7: ISED is seeking comments on its proposal to limit the eligibility to bid on set-aside licences to those registered with the CRTC as facilities-based providers that are not national operators, and that are actively providing commercial telecommunications services to the general public in the relevant Tier 2 service area of interest, effective as of the date of application to participate in the 3800 MHz auction. If not supporting ISED's proposal, provide alternate eligibility criteria.

92. Numerous parties make similar recommendations as Rogers with regards to enhancing the proposed criteria to determine eligibility to bid on set-aside spectrum and increase the transparency of set-aside eligibility. In particular, they call for greater clarity or the disqualification of companies that do not have actual facilities-based assets in a licence area, and only engage in resale and have “virtual facilities” or “over-the-top facilities”.²⁰
93. Some commenters, like Bell and Cogeco, recommend tighter geographic restrictions (e.g., actively providing services at a Tier 4 level), while some like Telus recommend having no geographic limitations.²¹ Rogers continues to believe that RSPs that are actively providing commercial wireless services in Canada and are operating a local wireless network with actual physical facilities are the most appropriate option to secure set-aside spectrum. Introducing new, unsustainable competition into the Canadian wireless market does not benefit Canadian consumers and businesses.
94. Further, we do not support calls by parties like CanWISP to create additional restrictions, carve outs, or rules that would ultimately lead to unsustainable entry or support speculative opportunities to acquire taxpayer subsidized spectrum in order to flip it for their own profit.²² As seen above, even small regional operators in rural areas such as Merritt, BC or Steinbach, MB, were successful in securing spectrum in the 3500 MHz auction with similar rules. The Department has continued to make additional spectrum available on a licence-exempt or lightly-licensed basis that is more than adequate for smaller operators looking to support fixed wireless services in deep rural and remote areas. Further, these bands continue to develop robust ecosystems that will support the types of services that Canadians are demanding. There is no need to mandate the entry of unsustainable competition that will misallocate resources and delay getting spectrum to those operators with

²⁰ Bell Comments, para 53; McNally and Joseph Comments, para 14; SaskTel Comments, para 81; Eastlink Comments, para 10; BCBA Comments, pg 3.

²¹ Cogeco Comments, para 43; Bell Comments, para 53; Telus Comments, para 55.

²² CanWISP Comments, para 56.

sustainable business cases and the scale to invest in advanced network infrastructure.

Q8: ISED is seeking comments on its proposal that any set-aside licences acquired by set-aside-eligible bidders would not be transferable to set-aside-ineligible entities for the first five years of the licence term, except under certain circumstances as detailed in section 13.2.

95. There is general support for the Department's proposals limiting the transferability of set-aside licences, with Bell and Telus again raising their opposition to set-asides in favour of the use of tight spectrum caps to anti-competitively favour their joint Belus network. While Rogers continues to have a general objection to set-asides, we support their usage as the least harmful of the Consultation's proposed "pro-competitive measures" and a clearly better alternative than simply using a tight cap to create an implicit set-aside and then distorting competition between national operators and causing significant harm to Canadian wireless consumers and businesses.
96. Further, while we agree with SaskTel that unscrupulous actors may look to game the Canadian Radio-television and Telecommunications Commission's (CRTC) MVNO regime to secure 3800 MHz spectrum that they do not intend to deploy,²³ we believe the appropriate measure is to modify the MVNO rules to disincentivize such bad faith actors. Unduly delaying the transfer of unproductive set-aside spectrum risks increasing the harms of set-asides, with inefficient service to Canadians the result. As discussed below in response to Q13, such potential regulatory gaming supports any set-aside being placed in encumbered spectrum, as it could be ineligible for MVNO Access. Thus, RSPs would be further incented to build-out their network instead of simply leasing access from the national carriers, supporting facilities-based competition to the benefit of rural Canadians.
97. Similarly, the Department should reject any proposal to prevent the transfer of set-aside spectrum to national operators past the proposed 5-year moratorium.²⁴ The past decade has shown that much spectrum acquired through "pro-competitive measures" by non-national carriers has remained fallow until being acquired by national operators, and then quickly deployed by national operators to the benefit of Canadians in both urban and rural areas.

²³ SaskTel Comments, para 84.

²⁴ McNally and Joseph Comments, para 1; Ecotel Comments, para 50.

Q9: ISED is seeking comments on its proposal that a set-aside be auctioned as five unpaired blocks of 10 MHz.

98. There is near unanimous support for the Department's proposal that a set-aside be auctioned as five unpaired blocks of 10 MHz. CanWISP appears to be the lone outlier, proposing a 20 MHz block size as many equipment manufacturers support 20 MHz channels.²⁵ Equipment manufacturers support various block sizes, with 5G n77 (3300-4200 MHz) supporting 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, and 100 MHz channels. Auctioning as 10 MHz blocks in no way prevents a set-aside bidder from assembling multiples of 10 MHz to create larger channels. It will also increase the opportunity for competition within the proposed set-aside and allow for greater price discovery.

99. The Department should also reject all proposals to increase the proposed set-aside beyond five unpaired blocks of 10 MHz. As detailed above, a 50 MHz set-aside is more than sufficient 3800 MHz spectrum, particularly with the significant amount of 3500 MHz spectrum in the hands of regional operators through the prior auction set-aside and transition spectrum.

Q10: ISED is seeking comments on its proposal that the cross-band cap be applied across the 3500 MHz and 3800 MHz bands.

100. As we highlight above in our reply to Q4, all parties that support the tight cross-band cap explicitly do so because it favours their own competitor class or organization, not because it supports broad wireless competition. Bell and Telus do it as they both – individually, with no explicit communication – expect to integrate their 3X00 MHz holdings into the joint Belus network. The majority of RSPs want a tight spectrum cap, often in conjunction with an increased set-aside, in order to increase the available low-cost spectrum for a fourth and fifth operator. All such recommendations are clearly self-serving and completely disregard the resulting negative impacts of a tight cap on wireless competition in Canada.

101. Quite simply, a 100 MHz cross-band cap is too tight for individual networks. It would create competitive and financial distortions between operators in the event that the Department does not address anti-competitive spectrum pooling by the second and third largest wireless providers. As we note above, a growing number

²⁵ CanWISP Comments, par 61.

of regional operators in this Consultation express concerns over Bell and Telus using their joint network to circumvent auction caps. We also gave examples in our comments of similar concerns being raised in previous Consultations, including Eastlink in the 3500 MHz licensing consultation. Other successful 3500 bidders such as Xplornet support no caps, while SaskTel does not support any cross-band cap.²⁶

102. Telus suggests that a tight cross-band cap is desirable as it implements an effective set-aside, in line with ISED's objective of promoting regional operators. However, this is a clearly fallacious argument. If ISED wants to achieve such an objective it can do so through an explicit set-aside, without needing to impose a tight cap that would both constrain Rogers' ability to compete with Bell and Telus for spectrum and disproportionately benefit both (though especially Telus) through restricted competition for spectrum and lower prices.
103. If the Department takes no action on anti-competitive spectrum pooling, it should adopt no cap or, in the alternative, not adopt any cross-band cap smaller than 150 MHz, as otherwise it will ultimately unduly benefit the Belus network.

Q11: a. ISED is seeking comments on its proposal that the maximum amount of spectrum that bidders in the 3800 MHz auction can acquire is a total of 100 MHz across the 3500 MHz and 3800 MHz bands.

b. ISED is seeking comments on its proposal that the 3500 MHz band be considered as part of this cap and 3500 MHz band licensees would not be required to divest any 3500 MHz band licences in order to fall within the spectrum cap. If this proposal is implemented, the conditions of licence for all 3500 MHz licences would be amended to reflect this decision.

104. For the reasons Rogers provides in both our comments and above in reply to previous questions, if a cross-band spectrum cap is to be applied, 100 MHz is too tight – particularly if the Department does not take any actions against anti-competitive Multi-Operator Core Networks (MOCN)-type network arrangements.
105. Further, Rogers strongly opposes the proposals by remote operators like CanWISP, Iristel, and Ecotel to further reduce any potential spectrum cap in rural areas.²⁷ As has been proven time and time again, the Canadian market is unable

²⁶ Xplornet Comments, para 88; SaskTel Comments, para 86.

²⁷ CanWISP Comments, para 63; Iristel Comments, para 46; Ecotel Comments, para 54.

to support five operators in every market, particularly in deep rural and remote ones. Five operators are not sustainable even in other countries with high population density and limited rural coverage challenges. A set-aside of 80 MHz would guarantee an unsustainable minimum of six spectrum holders in all rural tiers, regardless of any business case. This fragmentation of spectrum would not benefit rural Canadians, as the spectrum would undoubtedly remain un- or under-deployed, primarily benefiting speculators.

106. Rogers absolutely does not support Telus' proposal to adopt 110 MHz per operator cap. Telus positions their recommendation as providing effectively more spectrum than a 50 MHz set-aside, while also having "the benefit of getting more spectrum into the hands of network builders."²⁸ More importantly for Telus, it has the "benefit" of enabling the Belus network to have an even greater anti-competitive advantage vis-à-vis regional and the Rogers national network. As Rogers identifies in our comments, increasing a per operator cap by a small amount, while not addressing the anti-competitive 3X00 MHz spectrum pooling that Bell and Telus will enter into following the 3800 MHz auction that everyone, including the Department must fully expect – will only further increase the spectrum advantage for Belus. Further, it worsens the "five operators in all areas" problem, as it would make them even weaker in most hypothetical licence areas (Belus network = 220 MHz; Rogers network = 110 MHz; leading regional network = ~110 MHz; secondary regional/speculator/unbought waste = ~10 MHz).
107. The Department should continue to see these blatantly self-serving and wildly anti-competitive proposals by Telus for what they are, and strongly reject them.

Q12: ISED is seeking comments on its proposal that the cross-band cap be in place for five years following the 3800 MHz auction.

108. There is no evidence offered, as there is no justification, that a cross-band cap that does not address anti-competitive spectrum pooling does anything but lock in a failed auction outcome. This applies to those supporting a five-year cap and the outliers proposing a longer cap.
109. We continue to recommend ISED restrict the transferability and subordination of licences between licence holders in the future, including the 3800 MHz and future mmWave auctions. As a more general rule, the Department should publicly declare that spectrum pooling of greater than 40% of a band, through transfers or

²⁸ Telus Comments, para 70.

subordinations, will be subject to greater scrutiny due to the anti-competitive implications. If licence holders wish to combine spectrum after any auction, including the 3800 MHz auction, they must be limited by the same competition rules as all other bidders.

110. If, even after all the evidence of harm to facilities-based competition has been shown, the Department ultimately elects to adopt a cap of any size, including a minimum of 150 MHz, it should end after five years. Extending it would only compound the negative impacts and harms to Canadian wireless consumers of any 3X00 MHz cap.

Q13: a. The proposal to use generic licences and to offer licences in two separate categories of generic licences in the 43 service areas with encumbrances, as listed in annex A.

b. The proposal to use a 10% threshold to determine whether the 3700-3900 MHz blocks in a service area should be categorized as encumbered; and

c. If a set-aside is applied, stakeholder preference on whether the set-aside should be wholly contained in the unencumbered category or in the encumbered category in the 43 service areas with encumbrances, and the proposal to consider all blocks won by set-aside eligible bidders as set-aside blocks.

111. There is a broad consensus supporting the Department's proposals to use generic licences in two separate categories of generic licences in the 43 service areas with encumbrances, as listed in annex A and to use a 10% threshold to determine whether the 3700-3900 MHz blocks in a service area should be categorized as encumbered. Unsurprisingly, RSPs are looking to acquire as much preferential treatment for themselves and desire any set-aside placed in the unencumbered spectrum. We continue to strongly oppose placing the set-aside in unencumbered spectrum, as this will result in an undue double benefit to RSPs while being harmful to rural Canadians, as national operators continue to deploy in rural areas much faster than RSPs that are only now beginning to deploy in suburban areas.

112. We agree with Bell's observation that assigning set-aside spectrum to the middle of the combined 3X00 MHz spectrum bands will create a situation where set-aside-

eligible companies could block others' efforts to achieve contiguity.²⁹ Rogers supports all efforts to allow equal opportunity for achieving contiguity both within and across the 3500 MHz and 3800 MHz bands. However, we strongly object to providing any organization with an undue advantage to block those efforts, as well as any proposal to guarantee only a single licensee contiguity (the 3640-3650 MHz licence holder) while all other licensees are simply afforded a "best effort". Either all companies must be guaranteed contiguity for their holdings across the band, or all companies must be subject to the same "best effort" or market-based opportunities. For this reason, we oppose Bell's proposal to place the set-aside in the 3850-3900 MHz blocks, adjacent to the future WBS spectrum band (3900-3980 MHz).³⁰ Set-aside eligible bidders should be able to express a preference of frequencies in the assignment round. The time to have addressed this issue was prior to the 3500 MHz auction, as numerous stakeholders recommended at the time.

113. Telus also opposes the placement of the set-aside in the encumbered spectrum, though clearly for much more self-serving purposes. Telus notes that, outside of Tier 4-051 Montreal, these are primarily rural areas and RSPs have poor track records of deploying outside of urban areas.³¹ This assessment is similar to Rogers but fails to acknowledge that regional operators already hold substantial amounts of spectrum in these areas owing to the combination of the 3500 MHz spectrum retention policy and set-asides in the 3500 MHz auction. Further, as we highlight above in Q8, if the set-aside is placed in encumbered spectrum, it could be ineligible for MVNO Access, thus further incentivising RSPs to build-out their own facilities instead of seeking regulatory arbitrage. This would be a net positive for facilities-based competition and their accompanying benefits for Canadian consumers.
114. We also note that Telus holds the 3640-3650 MHz block in 14 of the 43 (33%) Tier 4 areas listed in annex A. Placing the set-aside in the encumbered block would prevent Telus from having an opportunity to bid for contiguity in these areas. Again, while we do not support guaranteed cross-band auto-contiguity for the 3640-3650 MHz licence holder (and "best efforts" for everyone else), we do believe all 3800 MHz licensees should have an opportunity.

²⁹ Bell Comments, para 59.

³⁰ Bell Comments, para 60.

³¹ Telus Comments, para 83-86.

Q14: ISED is seeking comments on its proposal to use anonymous bidding during the auction.

115. There appears to be unanimous support, or at least no objection, to the use of anonymous bidding as proposed by the Department. However, we support Xplornet's recommendation that the Department publish the names of the parties that have qualified to bid on set-aside spectrum within each Tier 2 licence area.³² This would ensure greater transparency and fairness prior to the auction and avoid the same confusion and legal challenges resulting from Videotron's surprise set-aside status in areas where they do not appear to have physical facilities. The determination of qualification for set-aside spectrum by ISED should be transparent given the large subsidy benefit that is conferred on eligible bidders.
116. Should the Department adopt a set-aside for the 3800 MHz auction, we agree that it should enhance the information available to all bidders in order to reduce aggregation risks and ensure an efficient outcome for the auction. Rogers supports the Department's proposal to provide aggregate demand information for each product (open and set-aside). This will benefit both set-aside-eligible and set-aside-ineligible bidders alike.

Q15: ISED is seeking comments on its proposal to use a clock auction format for the 3800 MHz spectrum auction.

117. There was broad support from respondents for the use of the clock auction format for this award and we continue to recommend that ISED adopt this format with little or no change in core auction rules from the 3500 MHz award beyond Rogers' proposals.
118. Four respondents propose changes of their own to the auction rules, which we do not support:
- Iristel calls for the elimination of **intra-round bidding**;
 - Telus recommends starting the auction at **5% bid increments**, at the low-end of ISED's proposed increments; and,

³² Xplornet Comments, para 93.

- Bell and Cogeco both propose that bidders be given an option to submit **all-or-nothing bids** when submitting a bid or bids that involves a reduction in demand.

119. We are unpersuaded of the need for any of these proposed changes to the existing rules and address them more fully below. We do not agree with Iristel's concerns with regard to intra-round bidding in Q16. Telus seemingly presumes the adoption of tight spectrum caps and is looking to reduce its spectrum costs due to an expected reduction in auction competition in Q17. Bell's proposal in Q18 has some merit; however, we are not convinced that the potential benefits justify adding complexity to the auction rules. Cogeco's version of the all-or-nothing rule would allow bidders to walk away from low demand, which is not desirable as it may encourage gaming.

Q16: ISED is seeking comments on the proposed structure of the clock stage and on the proposed methodology for calculating processed demands and posted prices after each clock round, as described in annex D.

120. There is general support from most stakeholders on the proposed structure of the clock stage and on the proposed methodology for calculating processed demands and posted prices after each clock round. Further, Rogers continues to support the use of intra-round bidding. It allows bidders more flexibility to express their demands and it makes ties less likely when multiple bidders change demand at the same price. We recognize that this rule adds some minor complexity to the auction design, but it is complexity that bidders may embrace or ignore as they please. Importantly, we do not see how bidders using intra-round bids causes any harm to other bidders, and, at the margins, it may enhance rather than obscure price discovery. Accordingly, we do not agree with Iristel that this rule "would tend to favor larger organizations."³³

121. Iristel further recommends reducing the maximum percentage increment to no more than 10% "to compensate" for the removal of intra-round bidding. However, as Rogers states in our comments, having intra-round bidding in no way nullifies the need to maintain modest absolute bid increments during the auction, especially later in a competitive auction when the stakes are very high. We repeat our call for the Department to adopt caps on the absolute size of bid increments as a proportion of reserve price, so as to help all bidders, large and small, manage price discovery and their own governance processes.

³³ Iristel Comments, para 54.

Q17: ISED is seeking comments on the proposed range of percentage increments.

122. Most stakeholders provide general support for the proposed range of percentage increments, though a few have proposed changes to enhance the process. Indeed, in our comments, we identify three challenges that emerged in the 3500 MHz auction: uneven auction pace; inadequate price discovery and bidder governance processes under stress. We put forward a proposal for minimum floors and maximum caps on the size of bid increments linked to the reserve prices for each lot. These proposals should be beneficial for all parties, facilitating a more even growth in prices and making it easier for bidders to manage their governance processes if the auction is very competitive.
123. Reviewing other submissions, it appears that other stakeholders have perhaps not adequately thought through the challenge of setting bid increments. This is not necessarily surprising, given that this is an issue where change could bring moderate benefits for all, as opposed to distinct carriers. Nevertheless, this is an area which merits the Department's attention and where easy improvements to the conduct of the 3800 MHz auction are possible.
124. To the extent that other bidders' comment on the level of increments, there is a typical preference for use of 10% increments over larger ones. Our proposed reforms would go further, ruling out increments above 10% once prices reached a certain threshold, and thereafter allowing a gradual reduction in % increments as prices climb. Our proposals do allow for increments above 10% early in the auction when prices are still low. We proposed this primarily to speed up the auction while prices are low; however, it is not a required part of our proposal. If the Department is receptive to other bidders' general concerns with increments above 10% early in the auction, our proposed absolute bid increment cap could be adopted without the proposed floor.
125. Telus provides general support for the status quo of increments in the 1-20% range but advocates that ISED both drop the reserve prices and open with increments of just 5%, with the rationale that this will provide an "opportunity for bidders to "negotiate" settlement".³⁴ Telus' direct statement regarding "negotiating a settlement in auction outcomes", particularly in the context of proposing measures that would serve to reduce spectrum prices, seems a strange thing to find in a public consultation document. Further, Telus' proposal must be considered in the context of its strong support for an anti-competitive 100 MHz cross-band cap.

³⁴ Telus Comments, para 94.

Having opted not to buy any spectrum in half the country in the 3500 MHz auction, Telus is now seemingly trying to engineer an award design that gives it the cheapest possible path to a nationwide 100 MHz block, and blocks anyone else from having a larger individual spectrum position. A combination of suppressed demand (owing to the cap), very low reserve price prices, and many early rounds with no meaningful price increase maximize the likelihood of an early auction settlement, primarily to the benefit of Telus shareholders.

126. Rogers does not support using increments below 10% at the start of the auction. Given that opening bids have been set well below expected value in a competitive auction, a 10% increment is low enough and provides plenty of room for price discovery. Telus' call for lower increments appears egregiously self-serving.

Q18: ISED is seeking comments on the proposed activity rule.

127. Most stakeholders generally support the proposed activity rules. Rogers continues to recommend our proposals to assign the same eligibility points to any product with a potential population encumbrance of less than 30%, as identified in Annex Table A1, and 60% the eligibility points to any product with population encumbrance of more than 30%. This approach will allow much easier switching between substitute products within service areas and would be to a significant improvement in auction efficiency. We cannot see any good reason why ISED would not want to adopt such an approach (or similar).
128. As noted above in Q15, Bell and Cogeco both propose versions of an all-or-nothing rule. While Bell's proposal has some merit, any potential benefits would not justify adding the required complexity to the auction rules. Cogeco's version could encourage gaming as it would allow bidders to walk away from low demand and leave lots potentially unsold.
129. Under Bell's proposal, bidders would be allowed to make bids where the reduction in demand is conditional on its requested changes being accepted in full.³⁵ In the example they present, they imagine a bidder that wants to reduce from 6 to 4 lots in a given area but does not want 5 lots. Allowing that bidder the option to make an all-or-nothing bid would mean that it would no longer be exposed to winning 5 lots, as it would either be retained on 6 lots or allowed to drop demand to

³⁵ Bell Comments, para 63.

4 lots. Bell further argues that bidders should be able to group together bids across multiple products, effectively creating a package bid.

130. We believe that Bell's proposal could provide bidders with some extra flexibility to express their demand and may, at the margins, help bidders to manage their activity and aggregation risk. However, its application would be rather limited. Notably, it is of no help to a bidder that is reducing its demand because it is no longer willing to buy its current demand at prevailing prices. Bell's proposal would add nothing if the main source of synergies between lots arose due to a need for bidders to secure some minimum number of lots (e.g., 4 lots in the example above).

131. Bell's arguments for the introduction of all-or-nothing bids appear to be based on a failure to understand that the activity rules have changed and that there should be no more risk of inadvertently losing eligibility as a result of bids that are not fully processed. The proposed rules tie eligibility to submitted activity rather than processed activity. There is no longer any need to have a 'grace round' and there is no problem with being 'unexpectedly forced' to bid on an inefficient combination of licences. Bell's proposal would also add material complexity to bidding in each round. For example, the bidding interface would have to be adapted to allow bidders the option to sort bids into mutually exclusive packages of all-or-nothing bids, and the bid processing algorithm would have to be adapted. Any marginal benefits for flexibility are not worth the additional complexity required of both bidders and the Department.

132. Cogeco's recommendation for the introduction of all-or-nothing bids appears to be explicitly addressed to the case where a bidder who drops out of bidding completely would win fewer than the minimum required number of blocks. However, it is not clear how material this concern is given that serious bidders will already hold spectrum in the 3500 MHz band and should be able to make use of any incremental bandwidth they acquire in this auction, particularly if made contiguous.

133. In any case, an all-or-nothing bid as proposed by Cogeco, where a bid that cannot be processed in its entirety results in a processed demand of zero, could result in unsold spectrum as it would lead to excess supply. This would seem to be in direct conflict with the Department's preferences to avoid situations in which particular regions move from excess demand to excess supply.

134. As such, while Rogers does not support Cogeco's all-or-nothing proposal, we do support that in cases where a set-aside eligible bidder wins a number of blocks that is insufficiently small to be usable, ISED should relax the conditions on

transferability to permit such a bidder to transfer or subordinate the licence to other operators that may not be set-aside eligible.³⁶ This could prevent the spectrum from remaining fallow or inefficiently deployed early in the licensing term. While it could reduce auction efficiency, it would support long-term facilities-based competition to the benefit of Canadian wireless consumers.

Q19: ISED is seeking comments on:

- a. the proposed structure of the assignment stage, including the conditions under which service areas are combined into assignment areas, the order of the assignment rounds, and the approach to guarantee contiguity for one bidder across unencumbered and encumbered blocks when applicable and
- b. the proposal to apply bidder-optimal core pricing and use the nearest Vickrey approach in determining assignment prices and
- c. whether winning bidders in the 3800 MHz auction (that is the 3640-3650 MHz licensee) in the same service area should automatically be assigned its licences starting at 3650 MHz in the 129 service areas where only unencumbered blocks are available.

135. We find no evidence in comments that alters our view that the Department should not guarantee cross-band, auto-contiguity for a single 3500 MHz licensee while all others are subject to “best efforts”. As SaskTel, Sogetel, and Cogeco state, any such rule should have been announced as part of the 3500 MHz auction and would serve as a financial windfall granted by the Department to select bidders.³⁷ While some state they would ultimately accept such undue largesse from the Department due to their general support for contiguity, we do not believe that a sole operator per licence area should have that guarantee.

136. Telus, who stands to benefit from auto-contiguity in a minimum of 43 licence areas under the Department’s proposal, is unsurprisingly in favour. They provide a number of strawman arguments about Rogers receiving auto-contiguity in the 2500 MHz and 3500 MHz auctions without additional assignment payments,³⁸ somehow simply ignoring that Rogers in fact paid \$9M in the 3500 MHz assignment rounds. Telus appears to discount that that they themselves were beneficiaries of being

³⁶ Cogeco Comments, para 68.

³⁷ Sogetel Comments, para 68; SaskTel Comments, para 96; Cogeco Comments, para 73.

³⁸ Telus Comments, para 102.

granted auto-contiguity in the 3500 MHz band between all their transition FWA and flexible use auction holdings. Further, Telus is attempting to obfuscate the fact that contiguity in the 2500 MHz auction was granted within a single auction, not across auctions. While Rogers proposed policies to ensuring cross-band contiguity as part of the 3500 MHz licensing consultation, the Department elected not to adopt any nor announce any. Telus is looking to be granted auto-contiguity across the 3500 MHz and 3800 MHz bands, something Rogers has never been granted. It should not be retroactively adopted now after explicitly not adopting any for the 3500 MHz licensing policy.

137. We highlight that non-cross-band auto-contiguity is also the Department's own precedent in the AWS-3 band, where the Department determined that other policy considerations outweighed auto-continuity across adjacent bands.³⁹ The 3800 MHz band, in encumbered and unencumbered areas, will require licence winners to evaluate multiple competing preferences, including when spectrum at the top of the band will become fully available due to FSS transitions and potential short-term constraints with unknown end dates, should ISED and Transport Canada maintain any measures to protect poorly designed or faulty radio altimeters.
138. Continuing in their role as having the most blatantly self-serving proposals in the Consultation, Telus also suggests that they should be granted auto-contiguity in the 43 encumbered areas where ISED has proposed to place the set-aside.⁴⁰ While we do not support placing the set-aside in this spectrum, nor do we support a single licensee per licence area being guaranteed contiguity. Should the Department adopt Telus' proposal, that would increase their auto-contiguity to 57 licence areas, second only to Xplornet's 74. However, since Telus holds the 3640-3650 MHz block in large urban centres, their 57 licence areas cover an astounding 71% of all Canadians, compared to just 15% for Xplornet.
139. If the Department ultimately adopts guaranteed auto-contiguity for a single bidder and only best effort for everyone else, which we do not support, they should provide clear justification for granting Telus (and by extension, the Belus network) additional undue advantages.
140. The best (and fairest) policy option is for ISED to combine the assignment stage of the encumbered and unencumbered blocks, allowing final band plan assignments (and prices) to be determined jointly across both parts of the band. This provides all bidders an equal opportunity, without any contiguity guarantee at

³⁹ ISED, para 23-25, *Technical, Policy and Licensing Framework for Advanced Wireless Services in the Bands 1755-1780 MHz and 2155-2180 MHz (AWS-3)*; <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10911.html#s3>.

⁴⁰ Telus Comments, para 106.

the 3500 MHz boundary (i.e., for a single licensee). This will also allow the opportunity for all licensees to enter the proposed negotiations in Q20 on equal footing.

Q20: ISED is seeking comments on the 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, including between a set-aside-eligible entity and a set-aside-ineligible entity across bands.

141. Rogers continues to support the proposal to exchange equal amounts of spectrum through transfer requests, of which there appears to be unanimous support. However, we also reiterate our recommendations that ISED chair any stakeholder process to promote enhanced spectral efficiency and limit opportunities for any anti-competitive behaviour, as well as ensuring final 3800 MHz technical rules and timelines for any coexistence requirements with adjacent FSS operations and radionavigation altimeters.
142. Rogers supports Cogeco's proposal that the Department consider adopting formal expedited transfer approval and review processes for these types of transfer requests that promote contiguity and do not involve a change in the amounts of spectrum assigned to operators.⁴¹
143. We also repeat our suggestion that we made in the recent Access Licensing and 850 MHz and PCS consultations that the Department lead an all-licensee process, whether through a stakeholder roundtable or formal consultation process, to facilitate making all operators spectrum holdings, across all bands, contiguous as quickly as possible for the benefit of all Canadians.

⁴¹ Cogeco Comments, para 79.

Q21: ISED is seeking comments on the proposed affiliated and associated entities rules that would apply to bidders in the 3800 MHz spectrum auction.

Q22: ISED is seeking comments on the proposed rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming 3800 MHz spectrum auction.

144. Rogers has repeatedly raised concerns about the impacts of the Belus shared network on the Canadian wireless industry, particularly the anti-competitive impacts of spectrum pooling and that Bell and Telus have achieved “quasi-coordinated” outcomes in previous auctions. Since the AWS-1 auction, the Department has crafted Canadian spectrum policy to subsidize and provide preferential access to RSPs. Spectrum for the three national retail operators has purported to treat Rogers, Bell, and Telus “the same” while ignoring the realities that there are only two national networks, the Rogers network and the Belus network. While RSPs have largely ignored this reality in order to focus on their own prioritization vis-à-vis national operators, they too are increasingly identifying the anti-competitive impacts.

145. While Rogers believes that any actions should be applied to any joint network (including the limited network partnerships Rogers is involved with), it is telling that the only joint mobile network that is identified in the consultation is the Belus network. Further, several regional operators specifically identify the Belus joint network as problematic by allowing Bell and Telus to circumvent any potential spectrum caps.

Comcentric:

... given the likelihood that the regulator would consider Bell Mobility and TELUS individually in the application of a cross-band spectrum cap between the 3500 MHz and 3800 MHz bands...⁴²

Ecotel:

ECOTEL would like to bring the current inequity that is arising from the network sharing agreement between Bell and Telus. By granting each organization the right to bid individually, ISED is defacto closing the eyes on an appearance of pre-auction collusion.⁴³

⁴² Comcentric Comments, para 72.

⁴³ Ecotel Comments, para 87.

Iristel:

Iristel would like to express deep concerns regarding the compatibility of the current Bell Mobility and Telus network sharing arrangement with the spirit of ISED's proposed rules on affiliated and associated entities. More precisely, these concerns are about the inherent freedom given to the two entities to synchronize their bidding strategy to optimize their spectrum assets before the auction.

In a spirit of transparency, if the two bidders cannot be recognized as associated entities, Iristel is asking ISED to impose a moratorium on spectrum subordination or transfer between both entities. The duration of this moratorium should be at least equivalent to the first population coverage condition milestone which is 5 years in urban tiers and 7 years in others tier. Iristel, believes that it's ISED role to establish and enforce rules that will prevent bidders from acquiring spectrum for other reasons than the bidders' own immediate network requirements.

Iristel agrees with the proposed rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming 3800 MHz spectrum auction and refers ISED to the comments of the previous question regarding the Bell Mobility and Telus network sharing arrangement.⁴⁴

Sogetel:

Given the likelihood that the regulator will consider entities sharing a RAN [i.e., Belus] as separate entities in the application of a cross-band spectrum cap between the 3500 MHz and 3800 MHz bands, Sogetel reiterates that a spectrum cap alone is insufficient to ensure that regional carriers have access to a reasonable amount of 3800 MHz spectrum required to sustain their evolution towards 5G.⁴⁵

Quebecor:

En fait, le caractère déraisonnable de cette proposition est amplifié lorsqu'on considère que dans de nombreuses zones de service, Bell et TELUS ne se font même pas concurrence, ayant essentiellement divisé

⁴⁴ Iristel Comments, para 62-64.

⁴⁵ Sogetel Comments, para 74.

le pays en sphères de responsabilité régionales dans le cadre de leur entente de réseau conjoint.⁴⁶

146. The anti-competitive impacts of these national retail operators that effectively combine two regional RANs for national coverage, i.e., the Belus network, is felt in more than just the circumvention of competition measures in auctions. Cogeco highlights the problematic aspects of how Bell and Telus jointly operate the Belus network to provide national retail services to both operators' customers but rely on the regional operation of the RANs to not compete against each other for wholesale services.

In particular, Cogeco recommends that 'competition' be defined as the ability to offer both retail and wholesale services, and that 'services' be clarified to be inclusive of both retail and wholesale telecommunications services.

Such a clarification would make it clear that any associated entity that wishes to participate in the auction must compete in both the retail and wholesale telecommunications markets in order to participate in the auction as separate entities.

Further, Cogeco submits that this would also ensure that, in particular, Bell Mobility and Telus Communications do not arbitrarily divide Canada into geographically separate markets where each sells retail and wholesale services. The objective of ISED's spectrum policies, and tangentially, the CRTC's telecommunications policies, are to stimulate competition in the telecommunications market generally, and in the mobile wireless market more specifically, in order to drive pricing to affordable levels for Canadians. Cogeco submits that its proposed definitional changes would assist ISED in this regard.⁴⁷

147. It is past time for the Department to take all the necessary steps to ensure any affiliated and associated entities rules promote a fair and efficient outcome in the 3800 MHz auction and any licensing processes. We continue to recommend that the Department integrate its policies and auction rules regarding collusion and affiliated and associated entities within a single framework, including spectrum aggregation limits, to ensure that unintended consequences do not benefit one or more bidders in auctions. Further, ISED should restrict the transferability and subordination of licences between licence holders in the future so that both primary

⁴⁶ Quebecor Comments, para 53.

⁴⁷ Cogeco Comments, para 84-86.

and subordinated spectrum available to an operator both count towards an operator's cap. This will prevent any unwritten agreements from skewing the auction. Ultimately it is competition between networks that determine the services that customers receive and the quality and cost of those services; in this regard, Bell and Telus are a single network.

Q23: ISED is seeking comments on its proposal to issue new flexible use spectrum licences in the 3800 MHz band with a 20-year licence term and the proposed wording of the condition of licence above.

148. There is broad consensus on the 20-year licence terms; Rogers further supports the calls from many parties, such as Bell, Cogeco, CWTA, Eastlink, Quebecor, Telus, and Xplornet, to start the licence terms when the spectrum is deployable, i.e., after any relevant protection/transition period.⁴⁸ For administrative ease, we would support this being licence terms starting April 1, 2025 and April 1, 2027, depending on the relevant licence area. Such action would also facilitate a no-head start rule, which would further enhance competition in the 3800 MHz band.

149. We note that several stakeholders also make similar recommendations as Rogers, that licence winners should not be required to make payment for licences until the spectrum band is cleared of legacy operations; otherwise, licensees will be required to pay for licences that are not yet usable, when that capital could be directed towards network investments and expanding coverage and capacity.⁴⁹ We continue to believe that the long-term benefits to the Canadian economy (through stronger economic growth) – and, thus, the Treasury (via increased taxes) – will more than compensate the Government of Canada, in addition from directly benefiting Canadians – particularly in rural and remote areas – by accelerating investment in networks.

150. The Department should reject strongly requests by CanWISP⁵⁰ and not consider the 3800 MHz band as a candidate for the proposed Access Licensing regime until, at a minimum, the end of the initial licensing period. As SaskTel states, “It is an unjust enrichment for ISED to charge spectrum buyers for a product and later give

⁴⁸ Bell Comments, para 77; Cogeco Comments, para 94; CWTA Comments, para 35; Eastlink Comments, para 22; Quebecor Comments, para 112; Telus Comments, para 115; Xplornet Comments, para 105.

⁴⁹ CWTA Comments, para 37; Xplornet Comments, 105.

⁵⁰ CanWISP Comments, para 87.

that same product to another party, while blocking the original licensee/payor from using the product for its own purposes.”⁵¹

Q24: ISED is seeking comments on the proposals on the condition of licence related to transferability and divisibility, and the proposed wording above.

151. Rogers does not support either of Cogeco’s confusing proposals.⁵² Firstly, ISED has previously allowed set-aside spectrum to be subordinated to set-aside-ineligible bidders prior to the end of transfer moratoriums to support network share arrangements. It is unclear what Cogeco is proposing but the Department should continue to allow all such joint network deployments, subject to normal competition reviews. Secondly, Cogeco proposes to harmonize 3800 MHz licence terms with 3500 MHz licences issuances dates (i.e., reduce 3800 MHz licence terms?) but then extend 3500 MHz deployment timelines to harmonize with those of the 3800 MHz band. Cogeco’s second proposal is even more convoluted and unnecessarily complex, and should be completely dismissed.

152. In our comments, Rogers highlights that the Department must evaluate any transfer or subordination application against any spectrum cap. We highlight Ecotel’s proposal, “to address the detrimental impacts on rural service of the appearance of collusion between Bell and Telus by imposing them a 7 years moratory [sic] on C-BAND spectrum subordination or spectrum transfer in rural tiers.”⁵³ A similar proposal was also put forward by Iristel.⁵⁴ While we do not support the extension of time, we believe that the Department should address Bell and Telus’ anti-competitive spectrum pooling in all service areas, urban and rural. Further, we believe the Department should reject Telus’ proposal to align any cross-band cap to five years from the issuance of the 3500 MHz licences, i.e., December 17, 2026.⁵⁵ Telus’ implicit goal is clearly to ensure that there are minimal potential barriers to the eventual anti-competitive pooling of their 3X00 MHz spectrum with Bell. This gives further weight to why the Department must take action – within the 3800 MHz auction and with Canadian spectrum policy, more generally – to deal with the negative impacts of Belus spectrum pooling.

⁵¹ SaskTel Comments, para 106.

⁵² Cogeco Comments, para 96-99.

⁵³ Ecotel Comments, para 95.

⁵⁴ Iristel Comments, para 66.

⁵⁵ Telus Comments, para 120.

153. We do not support Ecotel's other proposals that would prevent the transfer of set-aside spectrum to national operators once the proposed moratorium has ended, as it would likely result in spectrum not going to operators with both the greatest need for spectrum and ability to deploy nationally. As discussed further below in response to Q26, we also do not support any proposals that would alter conditions of licence to include mandatory subordination. As highlighted above in regard to making spectrum in its initial auction licensing term available for the proposed Access Licensing regime, it is an unjust enrichment to charge spectrum buyers for an exclusive licence only to later give the same spectrum to another party and prevent the original licensee from using the spectrum for its own purposes

Q25: ISED is seeking comments on the proposed deployment condition of licence as stated above as well as on the proposed levels of deployment as specified in annex B.

154. There is broad consensus amongst most mobile providers that the Department is proposing challenging deployment conditions due to a number of known delays and unknown impacts due to legacy operations and potential coordination challenges, along with undue and unfair additional burdens being placed on mobile LTE operators that effectively reward RSPs that have not deployed outside of urban centres. While there are some requests to even further accelerate deployments, these proposals are primarily by those that have no experience in the challenges of network building in remote areas and Telus' proxies. We agree with Bell, Cogeco, Comcentric, Eastlink, Quebecor, SaskTel, Sogetel, and TerreStar, a coalition of national, large regional, and small rural operators who all strongly recommend to not apply asymmetric obligations on LTE network operators and to start the deployment timelines from when the spectrum becomes usable after transition periods.⁵⁶

155. Telus and Bell again repeat their calls for the review and removal or modification of the mandatory roaming condition of licence,⁵⁷ which the Department should continue to firmly reject. Bell and Telus claim that ISED's and the CRTC's regulation of roaming is duplicative. Bell also asserts that the Department's mandatory roaming policy is at odds with the objective of fostering facilities-based

⁵⁶ Bell Comments, para 80; Cogeco Comments, para 104; Comcentric Comments, para 85; Eastlink Comments, para 23; Quebecor Comments, para 120; SaskTel Comments, para 118 & 128; Sogetel Comments, para 84; TerreStar Comments, para 65-66.

⁵⁷ Telus Comments, para 128-131; Bell Comments, para 90-103.

competition. On the basis of these false claims, Bell and Telus argue that the Department should eliminate the roaming condition of licence. As the Department is fully aware, and contrary to Bell and Telus' (continuous and erroneous) claims, Client Procedures Circular (CPC) 2-0-17 *Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements* covers important areas not duplicated by the CRTC Telecom Regulatory Policy 2015-177, including the mandated roaming requirement itself. In addition, the Department's mandatory roaming policy requires Bell, Telus, and Rogers to offer roaming services to each other. The CRTC's roaming policy regulates the rates that Bell, Telus, and Rogers charge the RSPs for roaming but the policy does not regulate roaming between the three national carriers.

156. The mandatory roaming condition of licence is therefore complementary to the CRTC's regulation of roaming, and it remains every bit as necessary today as when it was first introduced.
157. As we highlight in our comments, unlike MVNOs, who build little to no facilities themselves, Canadian wireless carriers who roam, including Rogers, have invested billions of dollars into their networks during the mandatory roaming regime. The conditions of licence ensure such investment by only entitling roaming to carriers who build and operate their own home network. Furthermore, roaming carriers are only entitled to services they deliver themselves and at a level of quality they provide their own customers. This necessitates continuous investment by Rogers, Canada's largest, single operator network, and all roaming carriers. In fact, Bell's own anti-competitive behaviour over access to telephone poles and their partnerships with utilities has been a significant barrier to the additional deployments Bell is recommending, including a finding by the CRTC against Bell just last year.⁵⁸
158. ISED must therefore maintain the current mandatory regime. Again, for clarity, TRP 2015-177 does not duplicate the roaming conditions of licence. The mandated roaming requirements remain essential, especially in light of the Belus joint network, whereby each partner only builds out their Radio Access Network to an area roughly equal to their own regional wireline footprint. Contrary to Bell's assertion,⁵⁹ mandated roaming is not at odds with facilities-based competition, but their joint network arrangement is. It has allowed Bell and Telus to avoid investing billions of dollars into the Belus network. Indeed, Cogeco highlights the fact that

⁵⁸ Daley, Hannah. "CRTC seeks to penalize Bell for support structure access delays." *The Wire Report* 16 April 2021; <https://www.thewirereport.ca/2021/04/16/crtc-seeks-to-penalize-bell-for-support-structure-access-delays/>.

Hathout, Ahmad. "Telus blamed for delay on Shaw/Bell Cache Creek fibre project." *The Down Up* 2 July 2021; <https://downup.io/telus-blamed-for-delay-on-shaw-bell-cache-creek-fibre-project/>.

⁵⁹ Bell Comments, para 100.

the Belus joint network arrangement allows Bell and Telus to each offer national retail services but not compete against each other for wholesale services, as they “only” operate RANs in their traditional wireline areas.⁶⁰ Meanwhile, whether measured by capital expenditures, spectrum acquisitions, or capital and spectrum expenditures as a percentage of revenue, Rogers consistently and substantially outspends Bell. From 2015 to 2021, Rogers’ investments in its wireless network have exceeded Bell’s investments by more than \$4.5 billion. Despite the higher investments Rogers continues to make in its national wireless network, it will always be at a disadvantage to Bell and Telus who are both able to leverage their respective century old, monopoly-funded, regional wireline infrastructure which extends deep into rural Canada. This makes it more economic and straightforward for them to expand wireless services in rural areas.

159. Rogers accepts that the Department continues to support joint infrastructure builds, but ISED should prevent anti-competitive spectrum pooling in the 3800 MHz band and all bands licensed in the future. Mandated roaming is one of the few policies that mitigates the economic advantage the Belus joint network creates and should be maintained. If Bell and Telus are permitted to extend their joint network arrangement to the deployment of the 3500 and 3800 MHz bands, which we do not support in a MOCN-type arrangement.

Q26: ISED is seeking comments on whether to accelerate the proposed timelines for deployment from what is proposed in annex B.

160. Rogers supports the large majority of network operators recommending that accelerated deployment requirements in the 3800 MHz band should not be imposed, including BCBA, Bell, Cogeco, Comcentric, Eastlink, Quebecor, SaskTel, Sogetel, and TerreStar.⁶¹ This grouping of national operators and large and small RSPs all highlight the various challenges outside the control of mobile operators, including: satellite operators need to stop broadcasting at 3700-4000 MHz and filters need to be installed at earth stations; WBS users need to be cleared from 3650-3700 MHz; and any temporary restrictions on deployment of high-power 5G below 3900 MHz need to be removed.

⁶⁰ Cogeco Comments, para 86.

⁶¹ BCBA Comments, pg 4; Bell Comments, para 108; Cogeco Comments, para 107; Comcentric Comments, para 87; Eastlink Comments, para 23; Quebecor Comments, para 128-131; SaskTel Comments, para 131; Sogetel Comments, para 87; TerreStar Comments, para 67.

161. Rather than having mobile operators devote significant resources (time, capital, engineering, etc.) to try and accelerate 3800 MHz deployment timelines, as well as having regard to the potential anti-competitive risks, Rogers' repeats our call that there should be a "no head start" policy, as was done in the 3500 MHz band. This will allow operators to focus their resources on deployments in other bands where the spectrum is already useable today.
162. As mentioned above, the Department should reject any proposal to force subordination agreements upon licensees that acquire exclusive usage spectrum licences at significant and ongoing costs. As demonstrated in the Access Licensing consultation, there is no substantive evidence of any need for mandatory subordination, only anecdotal preferences.
163. As ISED is well aware, Rogers has entered voluntarily into multiple agreements subordinating spectrum to small regional carriers serving rural and remote areas over the years. Some of those commercial subordinations include carriers calling for mandatory subordination as a way to accelerate spectrum utilization. However, during a recent audit of deployments by our subordinate licensees in the Department's Spectrum Management System (SMS) database, we have discovered a number of subordinate licences held by some of these carriers which have no deployments years after the Department has issued a subordinate licence.
164. If operators are unwilling or unable to deploy on subordinate licences they already hold through commercial subordination, forcing primary licensees to give access to their exclusively licensed spectrum will only serve to prevent or interfere with their own rural network expansion plans. Primary licensees' need for certainty that their spectrum will be available will only continue to grow in light of the recent general acceleration of rural deployments, the increased public partnerships to support closing the Digital Divide in Canada, and 5G technological advances that will make new public and private network offerings available for rural and remote Canadians and businesses.

Q27: ISED is seeking comments on:

- a. whether Tier 4 service areas with potential encumbered population of 30% or more, as identified in annex A, should have lower population coverage percentage deployment requirements for the general requirement, the mobile LTE requirement, or both and
- b. whether a minimum of 30% of potential population encumbrance is the appropriate level for consideration to lower deployment requirement levels

165. All stakeholders who provide a substantive response to Q27, save one, recommend that all service areas with encumbrances should have lower population coverage percentage deployment requirements.⁶² In particular, we strongly agree with Bell, who opposes, “having any mobile LTE deployment requirements for encumbered licence areas as such a requirement is simply not possible to achieve in some instances and not practical in others.”⁶³ Indeed, SSi Micro highlights that applying aggressive deployment obligations to auctioned flexible use spectrum licences in encumbered areas will effectively undermine the protection of FSS services.⁶⁴

166. The sole outlier in not recommending a reduction is Ecotel, a provider of primarily private wireless services that are unlikely to be impacted by FSS operations. Indeed, Ecotel is proposing a change in deployment coverage requirements in rural tiers,⁶⁵ i.e., areas they are likely to bid. As such, the Department can easily dismiss their self-serving position.

167. While there are a number of different proposals for reducing population coverage percentage deployment requirements in encumbered areas, we continue to support that all tiers which have potential encumbered populations of 10% or more should have lower deployment levels. The reduction of the population coverage requirement should be weighted to the potentially encumbered population, i.e., the larger the encumbered population, the greater the population coverage requirement should be reduced.

⁶² Bell Comments, para 110; Comcentric Comments, para 90; Iristel Comments, para 69; SaskTel Comments, para 132; Sogetel Comments, para 88-90; Telus Comments, para 125-126; TerreStar Comments, para 68.

⁶³ Bell Comments, para 111.

⁶⁴ SSi Micro Comments, para 39.

⁶⁵ Ecotel Comments, para 105.

Q28: a. ISED is seeking comments on potential measures or conditions of license that could accelerate Canada's Connectivity Strategy's target of 100% of the households covered with 50/10 Mbps within the timeframe of 2030.

b. ISED is seeking comments as to the potential to increase deployment requirements in any relevant spectrum bands to increase both fixed and mobile services in rural and remote areas, and potentially provide coverage to currently underserved locations, such as roads.

168. We agree with Bell, Cogeco, Comcentric, Sogetel, and Xplornet that no additional conditions of licence should be leveled on the already aggressive deployment timelines, particularly without additional funding for deep rural or remote areas that have very challenging economics.⁶⁶ Deploying and enhancing advanced wireless services in unserved or underserved areas will require significant capital investments and access to spectrum for primary licensees, and a true Team Canada collaborative approach between the private and public sectors. This includes wireless facilities-based network operators having the same access rights to passive infrastructure as wireline network operators.

169. Further, as Quebecor highlights, the Department has recently undertaken numerous new measures to enhance rural and remote deployments (e.g., strong 600 MHz and 3500 MHz deployment requirements; nearly doubling the size of the WBS band; adding over 1 GHz of licence-exempt spectrum in the 6 GHz band; proposed Access Licensing regime in 850 MHz and PCS bands; etc.), and should wait until these measures have had time to make an impact before adding additional measures that may have negative unintended secondary effects.⁶⁷

170. As highlighted above, the Department should continue to reject mandatory subordination requests from those who are simply trying to have primary licensees finance their subordinate licensees' spectrum costs. This is especially the case with those who hold undeployed commercial subordinate licences, as well as those operating in remote areas that effectively have exclusive access to large amounts of licence-exempt spectrum with robust ecosystems. Based on the actual evidence on the record, Rogers and other primary licensees continue to regularly support subordinations to public and private networks on a commercial basis.

⁶⁶ Bell Comments, para 113; Cogeco Comments, para 114; Comcentric Comments, para 91; Sogetel Comments, para 91; Xplornet Comments, para 115.

⁶⁷ Quebecor Comments, para 133-135.

Q29: ISED is seeking comments on the proposed opening bid prices, including whether to reduce the opening bid prices for the encumbered category in the 43 service areas with encumbrances.

172. There is broad support for the Department's proposed opening bids, which have been set using a methodology consistent with the previous auction, including limited objection from set-aside eligible bidders. Unsurprisingly, some prospective set-aside eligible bidders ask for a reduction in opening prices, which would increase their ability to gain both guaranteed and low-cost spectrum. Iristel, who has a long history of such regulatory arbitrage, is one such example.⁶⁸ We note that numerous other regional operators support the Department's proposal, including CanWISP.⁶⁹
173. Bell echoes Rogers' comments by stating, "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."⁷⁰ As Rogers has previously noted, opening bids are at the high end of international benchmarks for C-band reserve prices, but they are well below average international market prices and only a small fraction of the 3500 MHz auction price. Accordingly, it is impossible to make a case that the proposed opening bid prices are too high.
174. The one glaring and completely self-serving exception in calling for reduced opening prices is Telus, which the Department should strongly reject.
175. As currently formulated, a tight 100 MHz cross-band cap, which Rogers does not support, would restrict Rogers, Bell, and Telus collectively to buying 300 MHz across the two auctions, with at least 150 MHz available for other parties. This would be an enormous shift in competitive conditions across the auctions, from one where supply of spectrum for the national operators was highly constrained to one in which demand is constrained. In the 3500 MHz auction, the opening bid levels were largely irrelevant to the outcome, because much higher prices were identified through competition. However, with a 3800 MHz auction under a tight cap, the reserve prices would matter much more because there is a material possibility that some areas see little or no excess demand.
176. The calls from Telus for much lower reserve prices – they propose a 6.5x reduction – must be considered in this context. Telus is a vociferous supporter of a

⁶⁸ Iristel Comments, para 73.

⁶⁹ CanWISP Comments, para 113.

⁷⁰ Bell Comments para 123.

tight 100 MHz cross-band cap, as it can be assumed that they intend to combine their spectrum in the joint Belus network for an asymmetric advantage against all other networks. As such, Telus hopes to have ISED create even more favourable rules to benefit themselves, Bell, and the Belus network.

177. Further, to state the obvious, all bidders, including Rogers, would like lower cost spectrum. Other things being equal, we would have no objections to lower opening bid amounts. However, other things are not equal. Rogers just spent \$3.326B at auction to secure a valuable portfolio of 3500 MHz spectrum, some \$1.378B more than Telus. Our strong bidding strategy was based on an assumption that as the Department had not announced any cross-band competition measures, bidders would be able to secure larger quantities of spectrum (at least up to 150 MHz) across the two auctions. Several stakeholders, including Rogers, proposed a cross-band cap in the 3500 MHz licensing consultation, and this was rejected by the Department; therefore, bidders had no reason to assume that the Department would subsequently impose such a cross-band cap. As such, we were obligated by the Department's own 3500 MHz auction policy to make substantial investments to preserve our competitiveness in the event Bell and Telus were permitted to combine their spectrum in a single network. Our bidding behaviour, and no doubt the bidding behaviour of others (e.g., SaskTel, Xplornet, etc.), would have been quite different if the Department had made any suggestion they would retroactively penalize successful 3500 MHz bidders through a tight cross-band cap that would suppress demand and prices in a second auction.

178. High prices owing to artificially suppressed spectrum supply for the three national operators in past auctions were damaging to the industry and have negatively impacted our ability to invest in 5G networks. However, if ISED is to intervene in the market in ways that will predictably suppress demand, and therefore lower spectrum prices, it must do so in a way that doesn't create winners and losers. In particular, it has to treat Rogers, Bell, and Telus evenly and publicly acknowledge what numerous other stakeholders and industry analysts continue to identify, Bell and Telus continue to circumvent any auction measures by (anti-competitively) pooling spectrum in the joint Belus network. That means the Department cannot close its eyes to the reality that the proposed "pro-competition measures" (which certainly in regard to the tight cap options are "anti-competition measures") structure the 3800 MHz auction such that Telus will secure an unfair share of its 5G spectrum at discounted prices. For absolute clarity, if a tight cross-band cap is adopted, Telus is already poised to receive a massive subsidy based on the Department's proposed prices and they are simply looking to further enrich their shareholders by proposing even lower prices. Their network share partner, Bell,

would be the second biggest beneficiary of lowered opening prices and a tight 100-100 MHz cross-band cap.

179. As we have explained throughout this response, there are several easy solutions ensure robust national competition, the most important being not allowing network share partners to combine spectrum in excess of the cap and not setting the cap too tight. An additional, albeit secondary, element is not lowering the reserve prices if a tight cap is adopted. For Rogers, the relative spectrum shortage resulting from the proposed cap more than outweighs any benefit from lower prices. For Canadians, the damage to national facilities-based competition will not be able to be undone.

Q30: ISED is seeking comments on the proposed eligibility points for spectrum licences in the 3800 MHz auction as outlined in annex F, and pre-auction deposits as outlined above.

180. Rogers does not support Telus' proposal to reduce pre-auction deposits to \$500 per eligibility point, along with their proposal to broadly scale down eligibility points.⁷¹ Reducing eligibility points and costs simply makes it easier for speculative bidders to create additional chaos in earlier rounds, confusing legitimate price-discovery, and competitive dynamics. While we continue to support an adjustment of opening bids for heavily encumbered blocks to reflect the potential lower population coverage, we recommend the Department assign the same eligibility points to any product with a potential population encumbrance of less than 30%. This will make it easier for bidders to switch between different products within the same service area that are likely substitutes in response to changes in prices

181. Similar to positions elsewhere, Rogers does support Telus' recommendation that the final payment and licence issuance be issued upon request, after a licensee deems that it views its spectrum as being ready for use.⁷² However, we believe that it is more appropriate to not have such requests exceed the relevant transition milestone, including March 2027, when rural WBS transitions are complete – not the March 2025 recommendation by Telus. This will provide greater procedural fairness to all licence winners, in both urban and rural areas.

⁷¹ Telus Comments, para 153.

⁷² Telus Comments, para 157.

Q31: ISED is seeking comments on the proposed renewal process for spectrum licences in the 3800 MHz band.

182. Rogers continues to support the Department's proposal that licensees will have a high expectation of renewal at the end of the initial licence term.

183. Rogers strongly agrees with Bell's proposal that the 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 (e.g., if flexible use licences could not be deployed for two years due to the C-band transition plan, the due date for the remaining 80% of the final payment would be March 2025).⁷³ Licensees would be able to focus on the significant investments required to deploy advanced wireless networks across all bands, including recently auctioned 600 MHz and 3500 MHz, as well as any new requirements in the 850 MHz and 1900 MHz bands, instead having capital tied up in (temporarily) non-productive 3800 MHz spectrum licences. The benefits to Canadians, particularly those in rural and remote areas with more challenging economics, as well as pulling economic growth multiplier effect forward of network deployments, will more than make up for the slight deferral in final payments to the Treasury.

184. Rogers thanks the Department for the opportunity to share its views and participate in this consultation process.

⁷³ Bell Comments, para 126.