Reply Comments of Intelsat US LLC

Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band (SLPB-002-20)

November 30, 2020

I Introduction and Executive Summary

1. These are the reply comments of Intelsat US LLC ("**Intelsat**"), filed pursuant to Innovation, Science and Economic Development's ("**ISED**") *Consultation on the Technical and Policy Framework for 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band*, Notice No. SLPB-002-02 ("**Consultation**").

2. **In its comments dated October 26, 2020, Intelsat, drawing on its first-hand experience and significant presence in the Canadian market, proposed both guiding principles and a practical path to an accelerated, streamlined clearing of a portion of the 3700-4200 MHz Band (the "C-band") that will allow the maximum benefits to be realized by Canadians, while treating incumbent operators fairly and equally in exchange for their investment in, and significant efforts required to clear, the band.**

3. **Based on the comments submitted in the Consultation to date, there is broad consensus that large blocks of contiguous mid-band spectrum should be made available as soon as possible, preferably as early as 2022, in order to deliver the full potential of 5G to Canadians and to maintain Canada's technological leadership. There is also strong consensus among commenters on the ideal path forward – the path includes aligning the 3800 MHz band plan and timing with the U.S. C-Band process, along with making the repurposed spectrum available to carriers through a public auction, which commenters perceive as transparent and fair for all spectrum bidders.**

4. **Adopting such an accelerated timeline in Canada requires a collaborative and orchestrated approach, extensive resources and significant costs. The relocation process for fixed satellite services ("FSS") will involve new space-segment investments and the accelerated depreciation of existing satellite assets, and require a carefully planned and complex migration to be carried out by the incumbent satellite operators. The incumbent satellite operators all recognize the importance of protecting the interests of their customers, including the vital services delivered to and by their Canadian customers.**

5. **The U.S. clearing process provides the necessary technical and policy blueprints for clearing within their jurisdiction; however, it will not, on its own, facilitate a more streamlined clearing process in Canada. A separate**

dedicated clearing plan and effort will still be required for Canadian FSS operations:

a. **The current U.S. space segment plan optimizes the relocation of U.S. services but does not take into account all constraints related to future clearing in Canada, in terms of timing, frequency or orbital locations. To adjust or disrupt this plan in a synergistic manner in order to take into account these unique Canadian considerations would require visibility and certainty into the Canadian process soon.**
b. **The U.S. plan does not solve for clearing of services on satellites located over the Atlantic serving Latin America media neighborhoods that are also downlinked in Canada but not in the U.S. – these satellites were excluded from the U.S. plan and are currently full thereby leaving no room for replanning to accommodate Canadian services.**
c. **The current U.S. plan for clearing the ground segment does not prioritize clearing the border Partial Economic Areas ("PEA") and does not contemplate production and manufacturing of clearing equipment for Canadian earth stations.**
d. **Compensating satellite operators providing service within Canada, who can then reimburse their customers' clearing costs, is critical to enable and accelerate the clearing of the C-band in alignment with U.S. timelines. In absence of any visibility and integration of the clearing plan in Canada, all the efforts of U.S.-based satellite operators will be understandably focused on the U.S. process, in particular given the incentives available to meet the incentivized clearing deadlines in the U.S. process.**

6. **Intelsat urges ISED to design a process for repurposing C-band spectrum that:**

(i) Allows for full alignment with the U.S. 3800 MHz band plan and clearing timing, including, assuming ISED renders a decision in connection with the Consultation in the first quarter or early second quarter of 2021, by making a first tranche of 120 MHz (inclusive of the 20 MHz guard band) available as early as possible in 2022, and a second tranche of 180 MHz available by December 2023 or as early as possible in 2024.[1] Consequently, the 4000 – 4200 MHz band will not be cleared for flexible use in order to ensure continuity for critical satellite services.

(ii) Provides clarity to spectrum bidders on the C-Band (3500 and 3800 MHz) and allows for large contiguous blocks to be made available for the deployment of 5G. Whether the 3500 MHz and 3800 MHz spectrum are

[1] This reflects a revision to the position taken in our October 26 comments.

auctioned together or in separate processes, it is well understood that the spectrum is substitutable as the bands share a common 5G ecosystem. Therefore, all parties need clarity on allocation processes for spectrum from 3450-3980 MHz before any of the award processes begin; and

(iii) Through a portion of the auction proceeds, covers clearing costs and properly incentivizes the impacted satellite operators to deliver the spectrum on the accelerated timeline, which would otherwise not be possible without such compensation and covers the repointing costs of earth stations.

7. In these reply comments[2], Intelsat will highlight commenters' broad agreement on certain bedrock elements of the repurposing of the band in Canada and which are consistent with its proposal above. Intelsat will also respond to comments suggesting ineffective, or inequitable approaches that would threaten a successful repurposing of the band to the detriment of Canada, as well as certain technical matters raised by commenters.

II Canada's Opportunity to Benefit from an Accelerated, Smooth Transition

8. Commenters were in broad agreement with ISED's policy objectives in the Consultation, in particular, regarding the clear benefits for Canada of repurposing the C-band for 5G.

9. Numerous parties focused on the importance of this one-time opportunity to repurpose large amounts of mid-band spectrum for 5G. In general, mobile network operators ("**MNOs**") emphasized the fact that Canada was already behind in this transition and favoured the creation of a large block of contiguous spectrum to be auctioned or otherwise allocated.[3]

10. Rogers urged the Department to consider the C-band together with the 3500 MHz band, as one band of spectrum: "The 3800 MHz Consultation may be Canada's last, best chance to create the right policies to the great benefit of Canadian consumers, businesses, and the global competitiveness of our economy. However, achieving the best outcome for any single policy issue requires that it be understood in the context that all of them are highly interdependent, as we are dealing with one band."[4] (emphasis in the original)

11. TELUS succinctly stated: "In order to keep Canada competitive in our increasingly global economy, and connect all of Canada by 2030, ISED needs to make as much

[2] These reply comments are focused primarily on issues around the reallocation of the C-band from its current use for FSS to flexible use licences deploying 5G technology.
[3] BCE comments, para. 5.
[4] Rogers comments, para E2.

mid-band TDD spectrum as possible available, as soon as possible."[5] Although more focused on the competitive effects of spectrum allocation, Shaw, too, recognized the unique nature of the opportunity: "The release of 3800 MHz spectrum is the last significant opportunity for the Department to level the competitive playing field with respect to mid-band spectrum, as it is the last anticipated major spectrum release on the horizon for sub-6 GHz spectrum."[6]

12. It is clear from these comments that the spectrum at issue is of enormous importance to the future competitiveness of the Canadian telecommunications industry and with it, the Canadian economy and society. In order to realize and maximize the value of this spectrum to Canada, it is imperative that ISED adopt a repurposing framework that will ensure an accelerated, efficient transition.

III Continued Importance of C-band Services

13. The C-band's enormous potential for deploying 5G services cannot be successfully realized without the significant efforts required to protect the valuable services currently provided by satellite operators in the band.

14. Commenters noted the critical importance of C-band services, both to broadcasters and in the North. A number of commenters representing significant broadcasting interests – CBC/Radio Canada, North American Broadcasters Association ("**NABA**"), CBS/Viacom Inc. and Corus Entertainment Inc. – emphasized not only the importance of C-band services, but also the importance of a smooth transition without any disruption to their critical services.

15. CBC/Radio-Canada emphasized the essential nature of C-band FSS to the continued fulfillment of its mandate, as the cornerstone of its technological infrastructure.[7]

16. NABA, emphasizing the continuing importance of C-band, calling for alignment with the U.S. and cautioning about efforts necessary to clear and protect ongoing FSS in 4000-4200 MHz band, noting the proposed December 2023 milestone for

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[5] TELUS comments, para. 3.
[6] Shaw comments, para. 9.
[7] CBC/Radio-Canada Comments, page 1:
"Afin de nous assurer de rencontrer notre mandat pour les années à venir, il est primordial que les moyens technologiques pour le faire demeurent en place. Notre système de distribution satellitaire en bande C'est une pierre angulaire de notre infrastructure technologique pour rendre disponible la programmation de la Société aux Canadiens partout au pays. De plus, nous utilisons également la bande C pour la connectivité IP de nos centres de production dans les régions éloignées du Nord (Nunavut, Territoire du Nord-Ouest et Yukon). Ainsi, il est clair pour la Société que les services fixes par satellites (SFS) doivent continuer à être correctement protégés et fonctionnels dans cette bande."

accelerated clearing in the U.S., proposed by ISED, is "highly ambitious."[8] It stated: "It is imperative that ISED protect C-Band downlink spectrum from the potential of significant harm to existing broadcast satellite users. NABA urges ISED to protect the interim and future role of FSS to distribute content within North America by limiting the amount of spectrum reallocated for 5G/LTE use to no more than the 280 MHz identified in the FCC plan, or better yet, 250 MHz, and provide safeguards to prevent spurious emissions from affecting the ability of FSS earth stations to receive content. Any newly introduced service in repurposed C-Band spectrum should have operational requirements that are determined by rigorous and careful interference testing and conditions to protect incumbent users. Moreover, any repurposing of C-Band spectrum from FSS should carefully consider cross-border implications. ISED must be clear in awarding spectrum to 5G/LTE operators that the award is subject to avoiding interference for FSS on adjacent bands."[9]

17. Commenters such as BCE, CBC/Radio Canada and the Department of National Defence, underlined the importance of continued FSS in the North, including support for ISED's proposal to maintain the primary allocation of FSS in the entire 3700-4200 MHz in satellite-dependent areas. BCE stated: "The C-band plays an important role in providing connectivity and critical services to the North, which we consider as rural and remote areas located in the northern part of Canada and served mostly by satellite connectivity. It is well suited for the continued provision of connectivity services in the North due to its resilience to atmospheric attenuation and existing infrastructure."[10]

18. As outlined above, accelerating the timeline for clearing the C-band in Canada will require a collaborative and orchestrated approach to deploying the extensive resources required, including new space-segment investments and the accelerated depreciation of existing satellite assets. Protecting the interests of existing FSS customers, including the vital services in the band, will require a carefully planned and complex migration to be carried out by the incumbent satellite operators.

19. Intelsat disagrees with the few commenters that supported Telesat's assertion that 100 MHz is sufficient to meet C-band FSS demands in non-satellite dependent areas. As outlined in our comments the proposal to repack all existing users into one-fifth of the spectrum currently used would adversely affect existing users and likely will create a shortage of C-band FSS users. These commenters did not

[8] NABA Comments, page 4, in answer to Question 24.
[9] NABA Comments, page 2.
[10] BCE Comments, para. 9.

provide any additional analysis to support this assertion and merely rely on Telesat's statement that this is possible.

IV Amount of Spectrum to be Cleared

20. There was very broad support for harmonizing the repurposing of the C-band for 5G with the U.S., as proposed by ISED in the Consultation and supported by Intelsat in its comments. This support, citing the practicality of harmonizing use across the border, was shared by commenters from a variety of stakeholder groups, including not only satellite operators and MNOs but also broadcasters and equipment manufacturers. By way of contrast, the far fewer commenters supporting the clearing of the 4000 – 4100 MHz range did not provide a practical path to doing so, in light of Canada's shared border with the U.S.

21. Intelsat and SES both support a harmonized approach to the amount of spectrum to be cleared in Canada and the U.S., as do certain flexible use stakeholders, who would theoretically stand to benefit from freeing up an additional 100 MHz if there were a practical way of doing so.

22. As noted by Rogers, Telesat's proposal to free up an additional 100 MHz leaves "several unanswered questions in regard to how useable that [100 MHz] would actually be." Concerns include that use of 4000-4100 MHz would:

    a. Cause potential interference to radio-navigation[11];
    b. Be limited to indoor use only and not viable for commercial services;
    c. Be subject to significant constraints close to the U.S. border where most urban Canadian areas are located, and flexible use systems are expected to be first and most extensively deployed; and
    d. Likely require modification to treaties or Memoranda of Understanding with the U.S. and FCC, with no assurance that it would even be possible.

    Rogers concludes, "At a minimum, it is expected that it would take at least 5-10 years before the spectrum would be made available by Telesat, not counting for the additional technical concerns. Thus, the one potential "advantage" of the Telesat proposal, an additional 100 MHz of terrestrial flexible use spectrum will either never be realized or, at most, have limited utility."[12]

23. Shaw, too, questioned the benefit of clearing additional spectrum in the 4000-4100 MHz range: "Since utilizing the 4000-4100 MHz range for mobile is the exception, not the general rule, among regulators globally, at this time there is a low

[11] The need for ISED to ensure a lack of interference with radio-navigation services in the 4200-4400 MHz band was also expressed by Transport Canada Civil Aviation in its comments.
[12] Rogers Comments, paras. 282-83.

probability of a viable mobile ecosystem in Canada for 4000-4100 MHz. Opening up this frequency range would also take Canada out of step with the U.S. band plan, creating interference issues with U.S. satellite operations at the border and, potentially, for Canadian receive stations of American and foreign satellite feeds. It could also create interference issues with aeronautical services in the 4200-4400 MHz band."[13]

24. As indicated above, broadcasters similarly emphasized the importance of harmonizing with the U.S. NABA commented that it "simply cannot support the Telesat proposal", based on its misalignment with the FCC plan: "The FCC decided on flexible use in the 3700-3980 MHz band and FSS use in the 4000-4200 MHz band. The Telesat proposal is out of alignment with the FCC by allocating the 3700-4080 MHz band for flexible use and 4100- 4200 MHz band for FSS. Spectrum use must be coordinated between all countries in a geographic region."[14]

25. Equipment manufacturers, including Nokia, Qualcomm and Huawei Technologies Canada, Ltd. strongly supported harmonizing Canada's equipment ecosystem with that in the U.S., in order to benefit from all-important economies of scale.

26. It is clear that ISED's proposal to harmonize the repurposing of the C-band spectrum for 5G with that in the U.S. is supported by most groups of stakeholders and is in the best interests of Canada.

V An Efficient Accelerated Clearing and Public Auction of the C-band

27. As Intelsat noted in its comments, transitioning the C-band in a manner that makes this valuable spectrum resource available for the rollout of 5G services while protecting existing users in Canada is a monumental undertaking. Other knowledgeable commenters also reflected the scope and challenge of the undertaking to clear the band, which in the absence of extraordinary effort would take until 2025, the date recognized by FCC as being in the public interest.

28. Notwithstanding these challenges, there was broad consensus among stakeholders regarding the value of an accelerated clearing of the C-band. Indeed, many commenters who were otherwise opposed to Telesat's proposal nonetheless found the timing aspect of Telesat's proposal to be attractive[15], while

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[13] Shaw Comments, para. 33.
[14] NABA Comments, page 15, in response to Questions 58 and 59.
[15] See, for example, TELUS Comments, at para. 210, where it states: "The 3500 MHz auction falls short in making enough mid-band TDD spectrum available per operator that is required to offer customers the full benefits of 5G. Due to the 3500 MHz spectrum constraints, there is a need to make more mid-band TDD spectrum available ASAP instead of waiting another 3+ years. Since the Telesat proposal makes 200 MHz available much sooner, the release of that spectrum could be combined with the 50 MHz in 3650-3700 MHz, and made available along the same timelines as the 3500 MHz band transition. ISED should take

others who favoured Telesat's proposal, favoured it at least in part due to the accelerated timing for clearing contemplated by it.[16] However, commenters expressed concern regarding the inefficiencies inherent in the use of multiple processes for allocating spectrum in the band, stating: "… the Telesat proposal would see three separate auctions taking place … [that] would result in Canadian operators holding licences for silvers of spectrum throughout the band."[17] Shaw also outlined the inefficiencies inherent in subsequent ISED review of applications for transfer of flexible-use licences.

29. Intelsat's proposal offers a similar accelerated timeline for clearing without suffering from the inefficiencies of Telesat's proposal identified by commenters. Intelsat's proposal would facilitate treating the 3500 MHz and 3800 MHz bands as contiguous for purposes of auctioning/allocating the spectrum. It would eliminate concerns regarding the inefficiencies inherent in allocating the mid-band spectrum on a piece-meal basis, for example, through a public auction for the 3500 MHz band, a private sale of the first tranche of the C-band, and then a later public auction for the second tranche of the C-band spectrum. Instead, through the use of one public auction or a maximum of two public auctions in rapid sequence as suggested by some commenters[18], valuable mid-band spectrum could be allocated on the most efficient basis possible, with full visibility for all auction participants.

VI Compensating Operators for the Transition

30. Commenters broadly supported compensating satellite operators and/or earth station operators, – at a minimum for the transition or relocation costs of repurposing the C-band and at a maximum for the monetized value of the spectrum repurposed. As Intelsat stated in its comments, compensation should address not just the transition and relocation costs associated with repurposing the band, but also the need to incentivize and reflect the unprecedented efforts and investment of satellite operators necessary to clear the band on an accelerated timeline to permit Canadians to realize the full value of this spectrum.

31. In response to ISED's question regarding the impact of the transition in the U.S., CBC/Radio-Canada, while acknowledging that transition of its services would be driven by the U.S. transition, made clear its view that it is up to ISED to ensure

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advantage of the proposed timelines to solve the significant spectrum constraints that exist due to the decisions made in the 3500 MHz process."

[16] See, for example, BCE Comments, at para. 11, where it states "[T]he Telesat proposal provides more mid-band spectrum for 5G services than the Department's proposal and does so on an accelerated basis. This will result in the faster and more efficient deployment of 5 G services…"

[17] TELUS Comments, para. 211.

[18] See Rogers Comments at para. E4, favouring one auction or at least coordinated auctions, in other words, the "fewest auctions possible."

Canadian users and operators receive financial support similar to that received as a consequence of the accelerated timeline in the U.S.[19]

32. BCE explicitly supported the Department paying for transition costs under either the Department's or Telesat's proposal: "We recommend that transition costs for existing satellite operators, FSS users, and WBS systems (either under the Department's proposal or under Telesat's proposal), be covered by the proceeds received from the auction of the 3800 MHz spectrum band and the 3650-3700 MHz spectrum band. These transition costs are a direct result of the government's initiative to allocate more mid-band spectrum for flexible use and would not otherwise be incurred."[20] Intelsat notes as well that implicit in BCE's support for the Telesat proposal is some recognition that satellite operators should be permitted to monetize some portion of the value of the spectrum being repurposed by ISED, and not only their transition costs.

33. The other large MNOs generally supported compensation in one form or another. Moreover, regardless of the measure of compensation advocated by these stakeholders, they universally supported – whether implicitly or explicitly – the notion of paying some form of compensation out of proceeds of a public auction.[21] For example, Rogers, noting the compensation provided in the U.S., suggested that the Department should provide some additional funding to ensure a rapid transition of Canadian earth stations. And while Rogers opposed Telesat's proposal which it characterized as "in effect a claim for perpetual transferrable rights", it noted more generally the importance that "the Department respects rights

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[19] "Toutefois , ISDE souligne que les titulaires ayant procédé aux transfert de leurs services recevront une indemnité aux ÉU, une fois de plus, CBC/Radio-Canada ne POURRA PAS recevoir une telle indemnité car nous opérons notre réseau en sol Canadien. Les impacts de cet échéancier sont donc principalement financier pour la Société puisque nous devrons acheter et installer une grande quantité de filtres passe bande de 4000 à 4200 MHZ afin de protéger nos LNB de la saturation. **Nous espérons cette fois-ci que ISDE considérera ces impacts financiers sur les utilisateurs de cette bande et prendra des décisions justes et éclairées afin de supporter financièrement les opérateurs SFS existants tel que le fait les États-Unis**." [emphasis in original] CBC/Radio Canada Comments, Response to Question 25.

[20] BCE Comments, para. 21.

[21] Alone among commenters, Eutelsat alleged that payment of compensation is inconsistent with the *Radiocommunication Act*. Intelsat disagrees as it is clearly within the Minister's discretion to use the proceeds of an auction in the public interest, and in a manner consistent with the telecommunications policy objectives. Incentivizing and compensating satellite and earth station operators out of the proceeds of an auction is clearly consistent with the Minister's powers and the policy objectives set out in Section 7 of the *Telecommunications Act*, including "(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions; (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; (c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications; and (f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective…"
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that are already awarded, otherwise this creates uncertainty and undermines investment." Rogers therefore supported an operator being compensated for "an accelerated clearance of the band, especially if there is reduction of the term of an existing licence, and also leading to a significant economic cost to comply."[22]

34. Although Rogers did not explicitly support using auction proceeds to compensate satellite operators, in the context of transitioning rural and remote broadband WBS operations, it stated that the Department could use proceeds from the 3500 MHz auction (or any future 3800 MHz auctions) to provide financial support to facilitate a rapid and smooth transition to new frequencies and new frequency agile equipment.[23] Recognizing that "the Department has traditionally declined to provide transition financial support for displaced services from auction revenues", Rogers noted "the additional economic activity triggered by 5G services will lead to additional tax revenue for all levels of government and more than recoup the transition costs", concluding: "It is a win-win-win for industry (flexible use and WBS), government revenues, and Canadian taxpayers and consumers."[24] Intelsat notes that the same can be said for its proposal to compensate satellite operators, and through them, FSS earth station operators, from auction proceeds.

35. Shaw – together with the other regional MNOs, Bragg Communications Inc. ("**Bragg**"), Saskatchewan Telecommunications ("**SaskTel**") and Québecor Media Inc. ("**Québecor**") – similarly opposed Telesat's proposal. However, it is apparent that much of the negative sentiment generated by Telesat's proposal was driven by Telesat's suggestion that it alone should be permitted to monopolize the entirety of the value of the first 200 MHz of spectrum cleared (through a private sale of flexible use licences granted solely to Telesat). Shaw, for example, stated it was not opposed to Telesat being reimbursed "out of any auction proceeds or other government funds, for any reasonably incurred and substantiated relocation costs."[25] Such costs would be incurred by all FSS operators, and not just Telesat.

36. SaskTel, too, preferred payment of compensation out of the proceeds from a public auction over a private sale: "Should the Department determine it is in the public interest to provide compensation to satellite and earth station operators for their relocation costs, SaskTel would recommend that this funding be taken from the proceeds of a government-led public spectrum auction, as done previously in the United States, and not funded through private spectrum sales."[26]

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[22] Rogers Comments, para. 274.
[23] Rogers Comments, para. 143.
[24] Rogers Comments, para. 144.
[25] Shaw Comments, para. 21.
[26] SaskTel Comments, para. 32.

37. Intelsat agrees with Telesat's observation that it is "unrealistic to separate the date the U.S. established for the accelerated completion of the transition for the 3700-4200 MHz band from the substantial mechanisms adopted by the FCC as the only way to realistically enable that outcome." Telesat stated its belief that achieving the proposed transition deadline without widespread loss of critical services "will only be possible with substantial investment". Intelsat agrees, but this investment must be made by all FSS incumbents, and can equally be achieved by all incumbent satellite operators equitably sharing a portion of the proceeds generated by a public auction.

38. The fact is that compensation for satellite operators must go beyond clearing costs to incentivize the significant efforts required and recognize incumbents' investments in the band. Intelsat's proposal is in the public interest because it would permit incumbent satellite operators to share with Canadians – not monopolize – the enormous value of reallocating this spectrum for 5G, thus serving ISED's policies.

VI Telesat's Proposal

39. Telesat's proposal that it alone be issued flexible use licences in the first 200 MHz cleared, and then market those licences in one or more private sales, received only sporadic and inconsistent support from commenters.[27] Indeed, even BCE, who supported Telesat's proposal, allowed how there were several outstanding issues requiring greater clarity regarding the allocation of spectrum under its plan.[28]

40. While acknowledging the benefits of Telesat's proposal in terms of facilitating an accelerated clearing of portions of the C-band, those opposing Telesat's proposal commented that it was not in the public interest for a number of different reasons. Intelsat submits that the benefits of Telesat's proposal can be achieved without its drawbacks, simply by employing a public auction as a mechanism for allocating the spectrum, while ensuring that all satellite operators are involved in, and compensated for, the clearing effort.

41. Numerous commentators – in particular, new entrant and regional wireless providers, such as Bragg, SaskTel, Québecor, Cogeco Communications Inc. and Shaw – strongly favoured a public auction over a private sale as proposed by Telesat. These parties were deeply concerned that a private sale would constitute

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[27] Telesat's proposal received support from the Department of National Defence Frequency Spectrum Management, who made it clear that Telesat had provided them with guarantees that they would not be adversely affected, while the Toronto Police Service commented that it supported Telesat's proposal "since ISED could count on the knowledge base of Mr. Ian Scott (CRTC Chairman) who previously was a Senior Executive with Telesat and has knowledge of satellite legislation and also of the needs of public safety through the current NG9-1-1 Consultations."

[28] BCE Comments, pages 7-8.

an improper delegation of ISED's authority over the allocation of the spectrum resource to a private party.[29]

42. The larger MNOs, who emphasized the importance of the contiguity of the 3500 MHz and 3800 MHz bands, also pointed to the difficulties presented by using private sales driven by Telesat to allocate the C-band spectrum, while using a public auction to allocate the 3500 MHz band spectrum.[30]

43. Commenters representing a broad collection of interests mirrored the concerns of Intelsat and SES regarding Telesat's claims that it could clear the band alone, seemingly without the participation of other FSS operators. Certain commenters pointed out that Telesat's claim that it alone should be responsible and rewarded for clearing due to the fact that it is the "exclusive licensee" in the C-band in Canada, conveniently ignored the other FSS providers, such as Intelsat (with the majority of earth stations) and SES operating and providing vital services to customers in Canada, using the C-band spectrum.[31]

44. Moreover, many commenters – including smaller telecom service providers who face capital constraints – strongly objected to Telesat's argument that it alone should receive compensation in order to permit it to fund its LEO project, viewing this as a self-serving grab for capital.[32] Assertions by Telesat that its proposed LEO constellation is the only solution to replace current C-band FSS services are not correct. Another option is the deployment of additional GSO C-band FSS networks similar to the solution adopted by the FCC. Telesat can replace existing satellite as well as deploy satellite at new orbital locations with rights obtained through the long-standing ITU process. Telesat's decision to deploy a global LEO system is a business decision not a consequence of ISED's proposal to allow 5G terrestrial deployment in a portion of C-band.

45. Even more unfounded was an argument featured prominently in Telesat's comments, to the effect that ISED should accept Telesat's proposal in order to help it compete against "foreign giants" … "who received significant compensation from the FCC for clearing."

46. Telesat's argument rests on the entirely false premise that the FCC "looked after its own" as Telesat now appears to be requesting of ISED. The fact is that Telesat,

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[29] See, for example, Shaw Comments, paras. 22-24.
[30] See, for example, Rogers Comments, para. 66.
[31] Eutelsat Comments, para. 7: "Telesat incorrectly suggests it has exclusive rights to spectrum that is shared with other satellite operators in Canada."
[32] Even if it were appropriate for Telesat to seek to use this process to generate capital at the expense of its competitors – which Intelsat disputes - Telesat already has received valuable contributions to its LEO project from the Government of Canada and has just announced that it will be accessing public capital markets in order to fund the project.

like all other C-band operators providing service in the U.S., received compensation for clearing the C-band. In the FCC process all operators received a share proportional to their market share and representation in the market, and as such, Telesat received its fair share. Intelsat is asking for no more and no less consideration in Canada than Telesat received in the U.S., i.e., that it receive compensation commensurate with its relative presence in the Canadian market.[33]

VII Conclusion

47. As in other countries around the world, the contemplated repurposing of the C-band in Canada is an undertaking of unprecedented technical complexity that would require existing C-band satellite operators such as Intelsat to incur significant financial expenditures and implement a multitude of operational changes necessary to clear the band, while ensuring important continued service to existing users of C-band FSS.

48. If properly incentivized, Intelsat believes the satellite industry can accomplish ISED's policy objectives by clearing a portion of the 3700-3900 MHz band for 5G deployment by mobile operators in Canada on an accelerated timeline, thereby maximizing the benefits to Canada of this ambitious repurposing of a large amount of valuable spectrum. This accelerated clearing can be accomplished through an approach that will meet the reasonable requirements of all stakeholders, including incumbent operators, C-band users and 5G mobile network operators and incentivize these parties to collaborate to achieve this goal in an efficient manner to meet the needs of Canadians.

[33] Telesat's arguments that it alone should be compensated in order to fund its LEO project or to support its ability to compete against foreign satellite operators are not only bad policy, If accepted, Telesat's approach would mislead Canada into a clear violation of the principle of national treatment and with it, Canada's international commitments under trade agreements, including the WTO. In contrast, Intelsat's proposal is consistent not only with the public interest, but also with Canada's international obligations.