

**Innovation, Science and  
Economic Development Canada**

**Spectrum Management and Telecommunications**

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**Notice No. SLPB-002-20**

***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***

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**Comments**

**of**

**Xplornet Communications Inc.**

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**October 26, 2020**

## **INTRODUCTION AND EXECUTIVE SUMMARY**

1. Xplornet Communications Inc., on behalf of itself and Xplore Mobile Inc. (collectively, “Xplornet”), welcomes the opportunity to provide its comments with respect to the *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* (“Consultation”) currently being undertaken by Innovation, Science and Economic Development Canada (“ISED”).
2. Xplornet supports ISED’s work to repurpose spectrum within the 3650-4200 MHz band (“3800 MHz Band”) for flexible use. This mid-band spectrum is essential to support the delivery of 5G services for Canadians. Through the present proceeding, ISED is seeking input on numerous policy and technical questions that will assist it in establishing a framework to govern the repurposing of the 3800 MHz Band.
3. In designing a framework for repurposing the 3800 MHz Band, ISED is guided by the objective of the Spectrum Policy Framework for Canada (“Spectrum Policy Framework”). Specifically, following the Spectrum Policy Framework, the 3800 MHz Band must be repurposed to maximize the economic and social benefits that Canadians derive from this spectrum. The Enabling Guidelines set out in the Spectrum Policy Framework are intended to assist ISED in achieving this objective.
4. In this submission, Xplornet provides four recommendations to ISED with respect to how it can design a policy framework to repurpose the 3800 MHz Band in a manner that promotes the objective of the Spectrum Policy Framework. Specifically, Xplornet recommends that ISED:
  - 1) Permit flexible use in the 3800 MHz Band to the greatest extent possible by releasing the 3650-4000 MHz band as soon as possible and positioning the 4000-4200 MHz band to be made available in the coming years;

- 2) Relocate the Wireless Broadband Systems (“WBS”) band to 3900-3980 MHz in order to better support Canadians who rely on WBS-based services and to maximize the contiguous deployment of spectrum across the full 3450-3900 MHz frequency range;
  - 3) Allocate licensed spectrum (i.e., frequencies 3650-3900 MHz) through an ISED-run auction and reject the Telesat Proposal<sup>1</sup>; and
  - 4) Strive to align the 3650-3900 MHz band with the 3450-3650 MHz band (“3500 MHz Band”) to promote the operation of the 3450-3900 MHz frequency range as a single block of spectrum.
5. In addition to these recommendations, in Attachment A to this submission, Xplornet provides responses to the questions posed by ISED in the Consultation. Xplornet reserves the right to elaborate on these responses and to comment on matters not addressed in later stages of this Consultation.

### **BRINGING 5G WIRELESS BROADBAND TO URBAN AND RURAL CANADIANS**

6. ISED received extensive comments from parties during its consultation concerning the 3500 MHz Band<sup>2</sup> that detailed the importance of mid-band spectrum for 5G deployments. The 3800 MHz Band is no less important for 5G services than the 3500 MHz Band. The 3500 MHz Band alone cannot provide sufficient capacity to meet the needs of Canadians for fixed and mobile wireless broadband services. Repurposing spectrum within the 3800 MHz Band for flexible use will supplement the 3500 MHz Band spectrum to be allocated in 2021 and enable service providers to deliver advanced 5G broadband to Canadians.
7. The services that will be delivered using the 3800 MHz Band are the same state-of-the-art services contemplated in discussions about the 3500 MHz Band. Urban

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<sup>1</sup> Proposal Submitted by Telesat Canada to ISED dated July 5, 2020, as attached to the Consultation (“Telesat Proposal” or “Proposal”).

<sup>2</sup> Consultation on a Policy and Licensing Framework for Spectrum in the 3500 MHz Band, SLPB-002-19.

and rural Canadians alike will benefit from access to cutting-edge 5G wireless broadband services.

8. In rural areas of the country, there is significant and immediate demand for mid-band spectrum to support wireless broadband services. Rural wireless providers are currently facing extreme shortages of spectrum, as no spectrum allocations have been made to support rural wireless services for more than six years. This is despite the fact that residential Internet use has increased by over 600%<sup>3</sup> over that same period.
9. As a champion for rural broadband, Xplornet shares the objectives of the Government of Canada to bring advanced broadband services to rural Canadians. Access to new mid-band spectrum is critical to enabling 5G rural broadband. 5G broadband will enable broadband speeds that will exceed the Government of Canada's Universal Service Objective ("USO") multiple times over and keep pace with the broadband needs of rural Canadians.
10. Urban and rural Canadians require access to critical mid-band spectrum as soon as possible. It is essential that ISED develop a framework for the 3450-4200 MHz frequency range, including repurposing spectrum within the 3800 MHz Band, that will meet the needs of all Canadians.

### **DESIGNING A 3800 MHz POLICY FRAMEWORK THAT PROVIDES MAXIMUM BENEFITS FOR CANADIANS**

11. The Spectrum Policy Framework sets out a core objective that requires ISED to manage spectrum in order "[t]o maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource." In establishing a policy framework for repurposing spectrum within the 3800 MHz Band, ISED is guided by this objective.

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<sup>3</sup> According to the CRTC's 2013 Communications Monitoring Report, average residential monthly Internet usage was 33.8 GB in 2012. See page 143. According to the CRTC's 2019 Communications Monitoring Report, average residential monthly Internet usage in 2018 was 209.5 GB. See Infographic 8.8.

12. The Spectrum Policy Framework sets out a number of Enabling Guidelines (“Guidelines”) that are designed to assist ISED in achieving the core objective. We submit that the following Guidelines are particularly relevant to the present process and provide helpful instruction to ISED as it designs a framework for the repurposing of spectrum within the 3800 MHz Band:

- “(a) Market forces should be relied upon to the maximum extent feasible;
- (b) Notwithstanding (a), spectrum should be made available for a range of services that are in the public interest;
- (d) Regulatory measures, where required, should be minimally intrusive, efficient and effective;
- (f) Spectrum management practices, including licensing methods, should minimize administrative burden and be responsive to changing technology and market place demands; and
- (h) Spectrum policy and management should support the efficient functioning of markets by:
  - permitting the flexible use of spectrum to the extent possible;
  - ...
  - making spectrum available for use in a timely fashion;”<sup>4</sup>

13. In the following sections, we provide four recommendations to ISED on how it can create a policy framework for repurposing spectrum within the 3800 MHz Band that best promotes these Guidelines, and in turn, the core objective of the Spectrum Policy Framework.

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<sup>4</sup> Spectrum Policy Framework, page 9.

**Recommendation 1: ISED should permit flexible use in the 3800 MHz Band to the greatest extent possible by releasing the 3650-4000 MHz band as soon as possible and positioning the 4000-4200 MHz band to be made available in the coming years (Guideline (h))**

**ISED should release the 3650-4000 MHz band for flexible use as soon as possible**

14. As part of the Consultation, ISED is proposing to release new spectrum for flexible use in the 3800 MHz Band. Specifically, ISED is proposing to make spectrum in the 3650-4000 MHz band available for flexible use and to maintain spectrum in the 4000-4200 MHz band for use by Fixed Satellite Service (“FSS”) C-band services. ISED is targeting to make spectrum in the 3650-3900 MHz available by auction in 2022.<sup>5</sup>
15. While Xplornet provides specific views on ISED’s proposed approach to releasing the 3650-4000 MHz band below, we note that we fully support ISED in its work to make this additional spectrum available for flexible use. Increased access to flexible use spectrum will allow wireless broadband services to meet the needs of Canadians and promote the objective of the Spectrum Policy Framework. Guideline (h) of the Spectrum Policy Framework specifically directs ISED to make spectrum available for flexible use to the greatest degree possible.
16. The release of the 3650-3900 MHz band will complement spectrum in the 3450-3650 MHz band (the “3500 MHz Band”) that is set to be auctioned next summer. After the release of the 3500 MHz Band and the 3650-3900 MHz band, Canadians will be poised to benefit from a contiguous block of flexible use spectrum spanning the entire 3450-3900 MHz range.

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<sup>5</sup> *Decision on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Decisions on Changes to the 3800 MHz Band, SLPB-001-19, D17*

**ISED should prepare to release the 4000-4200 MHz band for flexible use in a few years' time**

17. Given the continually evolving needs of Canadians with respect to broadband services, Xplornet submits that ISED should continue to look for opportunities to provide Canadians with access to additional flexible use spectrum in the coming years, consistent with Guideline (h), noted above.
18. To this end, we encourage ISED to hold another consultation to develop a framework for repurposing spectrum within the 4000-4200 MHz range for flexible use within a few years' time.

Telesat will not require any spectrum to support C-band services after 2026

19. It is clear that there is opportunity to release an additional block of 100 to 200 MHz of spectrum for flexible use in the coming years, as the need to allocate spectrum to support C-band services in Canada will continue to diminish, and likely fully disappear, in the near to medium term.
20. In the Telesat Proposal, Telesat has already identified that it is able to vacate the full 100 MHz of spectrum in the 4000-4100 MHz band by 2025.<sup>6</sup>
21. Beyond this, however, Xplornet believes that the entire frequency range from 4000-4200 MHz may be made available for flexible use on a similar timeline, as it appears that Telesat is planning to fully decommission its use of C-band capacity by 2026.
22. All of Telesat's Canadian C-band coverage is provided by three satellites: Anik F1R, Anik F2 and Anik F3.<sup>7</sup>

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<sup>6</sup> Telesat Proposal, page 7.

<sup>7</sup> <https://www.telesat.com/geo-satellites/>.

23. According to Telesat’s 2019 Annual Report<sup>8</sup>, all three of these satellites will be decommissioned by 2026, or sooner.<sup>9</sup> Anik F1R, which holds one third of Telesat’s total C-band capacity, will be imminently decommissioned in 2022. Telesat’s Anik F2 and Anik F3 satellites (which hold the remainder of Telesat’s Canadian C-band capacity) will be decommissioned by 2026.
24. At the same time, Telesat has not announced any plans to launch new satellites with C-band capacity to serve Canada. Instead it is focused on transitioning its current C-band customers to services supported by its new Low-Earth-Orbit (“LEO”) constellation.<sup>10</sup>
25. Given that Guideline (h) requires ISED to make spectrum available for flexible use to the greatest extent possible in order to best meet the needs of Canadians, it would be inappropriate for any spectrum to remain allocated to C-band FSS beyond that which is needed to serve the needs of Canadians. As Telesat will clearly be able to make an additional 100 to 200 MHz of spectrum available in the near future for flexible use, Xplornet submits that ISED should hold a further consultation to consider repurposing the 4000-4200 MHz spectrum.

**Recommendation 2: ISED should relocate the WBS band to 3900-3980 MHz in order to better support Canadians who rely on WBS-based services and to maximize the contiguous deployment of spectrum across the full 3450-3900 MHz frequency range (Guideline (d))**

26. Guideline (d) encourages ISED to impose regulation that is efficient and effective in order to maximize the use of spectrum for Canadians.
27. In this regard, Xplornet supports ISED’s proposal to relocate the current WBS band (3650-3700 MHz) to the top of the portion of the 3800 MHz Band that will be made available for flexible use (referred to as “Option 2” at Q14 of the Consultation).

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<sup>8</sup> Telesat Canada, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2019 (“Telesat 2019 Annual Report”).

<sup>9</sup> Telesat 2019 Annual Report, section D. Property, plants and equipment – In-orbit satellites.

<sup>10</sup> Telesat Proposal, paragraph 10.

28. Xplornet supports the relocation of the WBS band for two reasons: Firstly, it allows for the expansion of this band to better meet the needs of Canadians; and secondly, it maximizes the opportunity for contiguous deployments across the full 3450-3900 MHz band.

### **An expanded WBS band is needed to meet the needs of Canadians**

29. An expanded WBS band is critical in order to meet the needs of Canadians. In many areas of the country today, demand within the current WBS band, which spans only 50 MHz of spectrum, greatly exceeds the capacity provided by this spectrum. Interference issues are becoming challenging to manage because of congestion in the band. By relocating the WBS band as proposed by ISED, this band can be expanded from 50 to 80 MHz. With this increased capacity, rural Canadians will enjoy greater benefits from the services offered by WBS licensees, including increased access to broadband service meeting the USO.
30. Xplornet notes that the Consultation proposes to allocate the 20 MHz of spectrum adjacent to a relocated WBS band (i.e., 3980-4000 MHz), to serve as a guard band between flexible use and FSS systems. Xplornet submits that, in the future, if spectrum in the 4000-4200 MHz band is repurposed for flexible use, this 20 MHz guard band would no longer be needed and could be additionally allocated to WBS services, providing WBS licensees with additional spectrum to continue to keep pace with the growing broadband needs of Canadians.

### **Relocating WBS will maximize contiguous deployments across the full 3450-3900 MHz band**

31. Xplornet also supports relocating the WBS band in order to create a single a contiguous band of licensed flexible-use spectrum from 3450-3900 MHz. It is well established in the 3500 MHz Policy Framework<sup>11</sup> that blocks of 100 MHz of contiguous spectrum are optimal to allow for efficient 5G deployments<sup>12</sup>. By interrupting the 3450-4000 MHz frequency range with the current WBS band in the

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<sup>11</sup> *Policy and Licensing Framework for Spectrum in the 3500 MHz Band*, SLPB-001-20 [“3500 MHz Policy Framework”].

<sup>12</sup> 3500 MHz Policy Framework, paragraph 41.

3650-3700 MHz range, licensees will be less able to obtain contiguous spectrum to support their 5G deployments, thereby hindering the ability of this important mid-band spectrum to serve Canadians as efficiently and effectively as possible.

32. While relocating the WBS band to a higher frequency range may cause existing WBS licensees, including Xplornet, to incur displacement costs, Xplornet believes that relocating and expanding the band will provide important benefits to WBS licensees over the medium to long term. It is necessary to move this band in order to maximize the potential of the 3450-3900 MHz frequency range to support 5G broadband services.
33. Accordingly, by moving the WBS band to the top of the portion of the 3800 MHz Band to be allocated for flexible use, ISED can ensure it engages in efficient regulation and promotes increased benefits for Canadians.

**Recommendation 3: ISED should allocate licensed spectrum (i.e., frequencies 3650-3900 MHz) through an ISED-run auction and reject the Telesat Proposal (Guidelines (a), (b) and (f))**

**ISED should allocate licenced spectrum (i.e., frequencies 3650-3900 MHz) through an auction managed by ISED**

34. At paragraph 182 of the Consultation, ISED has summarized its previously stated views that it intends to allocate flexible use licences for spectrum in the 3800 MHz Band<sup>13</sup> through the use of an auction. As proposed by ISED in the Consultation, this would result in 25 blocks of 10 MHz of spectrum being allocated through an auction, assuming that ISED adopts its Option 2 and moves the WBS band to higher frequencies.
35. Xplornet supports the use of an auction designed and managed by ISED to allocate spectrum in the 3800 MHz Band. As set out in the Framework for Spectrum Auctions in Canada:

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<sup>13</sup> Apart from licences for flexible use WBS spectrum.

“[ISED] will generally consider the following broad conditions in determining whether an auction process will be used as the spectrum assignment mechanism:

- whether the demand for spectrum is expected to exceed the available supply; and
- whether government policy objectives can be fully met through the use of an auction.”<sup>14</sup>

36. Xplornet submits that demand will exceed supply for the mid-band spectrum that ISED is proposing to repurpose for flexible use. Even with the entire 3450-3900 MHz frequency range licensed for flexible use, this spectrum will remain insufficient to satisfy the demands of operators deploying 5G services for Canadians.

37. The use of an auction inherently maximizes reliance on market forces in the allocation of spectrum, as required by Guideline (a) of the Spectrum Policy Framework. Further to this, Guidelines (b) and (f) specifically require ISED to ensure that spectrum is made available to a range of services that are in the public interest and to use licensing methods that are responsive to market place demands. Accordingly, Xplornet supports ISED’s proposal to hold a further consultation to set the parameters of the auction, including competitive measures and other key elements of an auction structure (e.g., type of auction, deposits, etc.). As with the 3500 MHz auction, it will be essential for ISED to establish competitive measures to govern the allocation of spectrum. Only through an auction that is carefully designed and run by ISED can ISED ensure that spectrum will be available to meet the broadband needs of rural and urban Canadians, and that spectrum will be allocated to promote the continued development of a competitive marketplace, all as required by the Spectrum Policy Framework.

38. As discussed in greater detail below, it would not be appropriate for ISED to adopt other mechanisms being proposed by Telesat to allocate flexible use spectrum.

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<sup>14</sup> Framework for Spectrum Auctions in Canada, page 1.

### **ISED should reject the Telesat Proposal**

39. Telesat has advanced an alternative proposal that would see Telesat allocate 200 MHz of mid-band spectrum (3700-3900 MHz) through transactions in the secondary market instead of through an auction designed and managed by ISED. Telesat seeks to maintain the proceeds from these transactions. In exchange for the proceeds from the sale of this 200 MHz of spectrum, Telesat proposes to: 1) clear an additional 100 MHz of spectrum that it does not require (i.e., 4000-4100 MHz); and, 2) clear the 3700-3900 MHz band to make it available for flexible use along the same timelines as the 3500 MHz spectrum that will be subject to displacement following the 3500 MHz auction in June 2021 (i.e., by approximately December 2021 for spectrum in large urban population centres, June 2022 in tiers with a population centre of 30,000 people or more, and June 2023 in tiers without a population centre of 30,000 people or more<sup>15</sup>).
40. Xplornet submits that the Telesat Proposal fails to support the objective of the Spectrum Policy Framework and should be rejected by ISED. Xplornet highlights five specific issues with the Telesat Proposal that make this proposal inappropriate for ISED to adopt:
- **Issue 1:** The amount of spectrum that is allocated to Telesat to support its C-band operations should be determined in accordance with the core objective of the Spectrum Policy Framework and not influenced by a *quid pro quo* arrangement;
  - **Issue 2:** The timeline established for Telesat's displacement should be established in accordance with the core objective of the Spectrum Policy Framework and not influenced by a *quid pro quo* arrangement.
  - **Issue 3:** Telesat's proposed secondary market spectrum allocation process does not promote the objectives of the Spectrum Policy Framework;

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<sup>15</sup> *Decision on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Decision on Changes to the 3800 MHz Band*, Figure 2.

- **Issue 4:** Telesat is seeking compensation from ISED to cover its displacement costs – this is not permitted under the Spectrum Policy Framework and runs counter to ISED’s established practices; and
- **Issue 5:** It is inappropriate for Telesat to attempt to leverage a spectrum reallocation process to obtain financial support for its private asset LEO constellation, which is to be used in its for-profit business.

41. These issues are discussed in greater detail below.

**Issue 1: The amount of spectrum that is allocated to Telesat to support its C-band operations should be determined in accordance with the core objective of the Spectrum Policy Framework and should not be influenced by a *quid pro quo* arrangement**

42. As part of its proposal, Telesat has identified that it would clear the entire 3700-4100 MHz band, maintaining only 100 MHz of spectrum for continued C-band FSS (4100-4200 MHz). By stating this, Telesat seems to be suggesting that, by accepting its proposal, ISED could make an additional 100 MHz of spectrum available for flexible use than being contemplated in the Consultation.
43. Xplornet emphasizes that ISED should not determine the amount of spectrum that is repurposed for Canadians based on a *quid pro quo* arrangement proposed by a private party, but through evidence-based analysis concerning how spectrum should be allocated to best meet the core objective of the Spectrum Policy Framework. To this end, ISED should consider the spectrum requirements of existing C-band services and the spectrum requirements of services to be offered through flexible use. A balance should be determined to ensure that the needs of Canadians are met for both services to the greatest extent possible.
44. Xplornet encourages ISED to hold another consultation to consider the release of additional spectrum in the 4000-4200 MHz range within a few years’ time. It is clear that, at a minimum, 100 MHz of spectrum can additionally be made available by Telesat for flexible use within the next few years. However, as discussed above, Xplornet submits that it is likely that the entire 4000-4200 MHz band could be

repurposed for flexible use in the 2026 timeframe, as it appears that Telesat will no longer have any requirement for this spectrum to support C-band services.

45. This approach would promote the objective of the Spectrum Policy Framework. Given that Guideline (h) requires ISED to make spectrum available for flexible use to the greatest extent possible in order to best meet the needs of Canadians, it would be inappropriate for any spectrum to remain allocated to C-band services beyond that which is needed to serve the needs of Canadians. Any additional spectrum should be made available for flexible use.

**Issue 2: The timeline established for Telesat’s displacement should be established in accordance with the core objective of the Spectrum Policy Framework and not influenced by a *quid pro quo* arrangement.**

46. As part of the Consultation, ISED has proposed that FSS space station operations would be subject to a December 2023 transition deadline. This would enable alignment with the transition timeline in the United States and facilitate cross border coordination issues.<sup>16</sup>
47. As part of its Proposal, Telesat has promoted its ability to clear the 3700-3900 MHz band on an accelerated basis relative to ISED proposed timeline. Under its accelerated timeline, Telesat would make the 3700-3900 MHz band available before the end of 2023 (as described in paragraph 39 above).
48. However, Telesat has tied its ability to clear its spectrum on an accelerated timeline (or on any timeline for that matter) to the receipt of compensation from ISED. As Telesat emphasized at paragraph 6 of its Proposal:

“It would be deeply prejudicial to Telesat’s global competitive position if Telesat were required to clear 1/3 more spectrum in Canada than is being cleared in the United States – and on a more aggressive timeline – without an ability to receive meaningful economic value to offset the highly costly and technically challenging clearing process. **For the avoidance of doubt, in the absence of such economic value, Telesat simply could not afford to facilitate the clearing of any meaningful amount of 3800 MHz**

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<sup>16</sup> Consultation, section 9.4

**spectrum and still maintain the vital services that it provides to hundreds of thousands of Canadians every day.” [Emphasis added]**

49. Xplornet submits that it is inappropriate for Telesat to tie its ability to comply with any ISED direction to vacate under-utilized spectrum, which is a public good, to the receipt of compensation from ISED as a form of *quid pro quo*.
50. Xplornet submits that ISED should strive to make spectrum available for flexible use at the earliest reasonable opportunity. Canadians require access to this mid-band spectrum for flexible use and it would further the objective of the Spectrum Policy Framework to make this spectrum available as soon as possible. We note that the United States will have already cleared the 3700-3820 MHz band in a significant portion of the country by December 5, 2021. Xplornet submits that ISED should create a transition timeline that is reasonable for Telesat to achieve, yet allows for spectrum to be allocated for flexible use without delay. This assessment should be performed independently and should not in any way be contingent on ISED’s acceptance of other aspects of Telesat’s Proposal.
51. Based on publicly available data, Xplornet believes that Telesat is well positioned to clear a significant portion of the spectrum within a relatively short period of time in order for this spectrum to be made available for flexible use.
52. In recent years, there has been significant public inquiry into the use of C-band spectrum by the Canadian Radio-television and Telecommunications Commission (“CRTC”) and the CRTC has found that a significant portion of Telesat’s C-band capacity is not in use.
53. Specifically, in early 2014, the CRTC appointed an Inquiry Officer to conduct an inquiry with respect to the Canadian marketplace for satellite services that are used to provide telecommunications services to Canadians. The findings of this inquiry were published in the CRTC’s Satellite Inquiry Report.<sup>17</sup> While the Satellite Inquiry

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<sup>17</sup> Available online: <https://crtc.gc.ca/eng/publications/reports/rp150409/rp150409.pdf>

Report redacted a figure that assessed demand for Telesat's C-band capacity, it described that figure as follows:

“The figure below displays the purchased and available (unused) C-band capacity on Telesat's Anik F1R, Anik F2, and Anik F3 satellites that have coverage in Canada. **A significant amount of this C-band capacity remains available (unused).**”<sup>18</sup> [Emphasis added]

54. Given that a significant amount of C-band capacity is not being used by Telesat, Xplornet submits that Telesat is likely well positioned to vacate a significant portion of its spectrum in a reasonably short period of time.
55. Moreover, we believe that Telesat is likely already making plans to vacate a significant portion of its C-band capacity as a result of its own business priorities and the repurposing process that is taking place in the United States.
56. As noted above, Telesat's satellite Anik F1R, which holds one third of Telesat's total C-band capacity, will be imminently decommissioned in 2022<sup>19</sup>. Independent of this proceeding, Telesat must be making plans to transition its customers off of the C-band capacity of Anik F1R.
57. Further to this, Telesat is planning to decommission the remainder of its C-band capacity (i.e., the Anik F2 and Anik F3 satellites) by 2026. Telesat has not announced plans to replace any of the Canadian C-band capacity provided by its current fleet.
58. Given that Telesat's satellites with C-band capacity will all be decommissioned in the relatively near future, Xplornet believes that much of the work that Telesat may be required to perform to enable spectrum within the 3800 MHz Band to be repurposed for flexible use is likely required in any case for Telesat's own business priorities and the natural end of life of its satellites.

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<sup>18</sup> Satellite Inquiry Report, paragraph 63.

<sup>19</sup> Telesat 2019 Annual Report, section D. Property, plants and equipment – In-orbit satellites.

59. Xplornet encourages ISED to set a transition deadline as part of the Consultation that can be reasonably achieved by Telesat but that makes spectrum available for flexible use at the earliest opportunity. The transition deadline(s) that are set for FSS service operators should be established based on objective analysis and not influenced by any form of *quid pro quo* arrangement as proposed by Telesat.

**Issue 3: Telesat’s proposed secondary market spectrum allocation process does not promote the objective of the Spectrum Policy Framework**

60. Telesat has proposed that it should be permitted to sell C-band spectrum through secondary market transactions. Specifically, as described by Telesat:

“Telesat proposes that the first block of spectrum, being the 3700-3900 MHz band, should be licensed for terrestrial flexible use, through an initial Tier 1 flexible use licence issued to Telesat. Telesat would make that spectrum available in the secondary market, through licence subdivisions and transfers or subordinations in accordance with the Department’s existing policies for commercial mobile spectrum.”<sup>20</sup>

61. Xplornet submits that it is not appropriate for ISED to adopt this proposal, as it does not ensure that the objective of the Spectrum Policy Framework is promoted.

62. As discussed above, Guideline (a) of the Spectrum Policy Framework directs ISED to rely on market forces to the maximum extent feasible. Pursuant to the Framework for Spectrum Auctions in Canada, an auction is the most appropriate method to allocate spectrum where demand exceeds supply. Further to this, Guidelines (b) and (f) specifically require ISED to ensure that spectrum is made available to a range of services that are in the public interest and to use licensing methods that are responsive to market place demands. Accordingly, Xplornet supports ISED’s proposal to hold a further consultation to set the parameters of the auction, including competitive measures and other key elements of an auction structure (e.g., type of auction, deposits, etc.). Only through an auction that is carefully designed and run by ISED can ISED ensure that spectrum will be available to meet the broadband needs of rural and urban Canadians, and that

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<sup>20</sup> Telesat Proposal, paragraph 42.

spectrum will be allocated to promote the continued development of a competitive marketplace, all as required by the Spectrum Policy Framework.

63. Secondary market transactions are encouraged by ISED to facilitate the efficient use of spectrum by parties; however, Xplornet submits that they are not an appropriate means to allocate an entire spectrum band. Telesat correctly notes that ISED would have the ability to approve any proposed transaction in the secondary market. However, ISED would have no way to ensure that a transaction that has been proposed for approval represents the allocation of the specific spectrum that would best serve the needs of Canadians. Regardless of any competitive measures that may be set to attempt to govern how Telesat allocates spectrum, at the end of the day, Telesat would remain in a position to pick with whom it enters into commercial arrangements for spectrum. This is not appropriate and would represent an abdication by ISED of its responsibility to ensure Canada's spectrum resources are allocated to provide maximum benefit for Canadians.

64. In the United States, Telesat (through the C-Band Alliance) equally proposed to the Federal Communications Commission ("FCC") that FSS operators should be permitted to allocate spectrum within the 3800 MHz Band through private secondary market transactions. In its Report and Order<sup>21</sup> to repurpose the 3800 MHz Band, the FCC rejected Telesat's proposal in favour of an FCC-run auction. The FCC determined that a public auction was the only means through which it could allocate spectrum in a manner that promotes fairness, transparency, fair market pricing and robust participation from a diverse group of bidders (as is required to ensure that the needs of rural and urban Canadians are addressed through the allocation of spectrum and to ensure that competitive providers are well positioned in the marketplace). As the FCC stated:

“... we find that a public auction of flexible-use licenses—conditioned upon relocation of incumbent operations—will best ensure fairness and competition in the allocation of these new flexible-use licenses. The Commission has a long and successful history conducting public auctions of spectrum and has well-established oversight processes designed to

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<sup>21</sup> FCC, Report and Order and Order of Proposed Modification, FCC 20-22 ["Report and Order"].

promote transparency and ensure that valuable public spectrum resources are put to their highest and best use, while also promoting other public interest goals articulated in Section 309(j) of the Act. In more recent years, public auctions of new flexible-use rights have played a pivotal role in transitioning existing bands and making spectrum available for new uses. Importantly, the Commission carefully designs each auction to include transparent procedures that promote fair-market pricing and robust participation from a diverse group of bidders. Commission control and oversight of the auction of new flexible-use licenses in the 3.7-3.98 GHz band will ensure that a wide range of interested parties have fair and equal access to new spectrum rights that will be vital to the introduction of next-generation wireless services.”<sup>22</sup>

65. Xplornet submits that ISED should align with the FCC and reject Telesat’s Proposal. Unlike an allocation process based on secondary market transactions, an ISED designed and managed auction can be relied upon to efficiently and fairly allocate spectrum in a manner that best promotes the objective of the Spectrum Policy Framework.

**Issue 4: Telesat is seeking compensation from ISED to cover its displacement costs – this is not permitted under the Spectrum Policy Framework and runs counter to ISED established practices.**

66. As noted above, Telesat is seeking compensation from ISED for its displacement costs associated with vacating its C-band spectrum. This goes directly against the language of the Spectrum Policy Framework, which states as follows:

“The Department will reallocate spectrum, as necessary, such as to support the implementation of new services or to comply with changes to international frequency allocations. The impact of these reallocations on existing services, including the potential displacement of existing services, will be taken into account. **However, any displaced spectrum users will be responsible for all costs incurred as a result of any reallocation of spectrum by the Department.**”<sup>23</sup> [Emphasis added]

67. Telesat has drawn comparisons with the actions of the FCC, which has provided for compensation for the displacement costs of C-band licensees. It must be understood, however, that the FCC operates under an entirely different legislative

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<sup>22</sup> Report and Order, paragraph 25.

<sup>23</sup> Spectrum Policy Framework, page 8.

framework than does ISED. Compensation was provided by the FCC in order to comply with its legislative regime.<sup>24</sup>

68. ISED is not subject to the jurisdictional constraints of the FCC, and ISED has been clear that it does not provide compensation for displacement costs incurred by spectrum users as a result of a reallocation of spectrum. ISED has consistently applied its stated policy. ISED has not provided for compensation of displacement costs in any recent reallocation, whether in relation to the 3500 MHz Band, the 600 MHz band or the 2500 MHz band, even in situations where the spectrum is still in use.
69. Similarly, no compensation is proposed for WBS licensees in the current proceeding who will incur displacement costs as a result of spectrum reallocation. In the Consultation, ISED has stated that, where WBS licensees are not providing service meeting the USO, they would be able to apply for funding from the Universal Broadband Fund (“UBF”) for support to extend this level of service. While UBF support may help WBS licensees to manage displacement costs, the purpose of this funding is to support the deployment of advanced broadband services for rural Canadians and is not intended to compensate WBS licensees for displacement costs. This is akin to the funding Telesat is receiving for its LEO constellation, as discussed below.
70. Xplornet submits that ISED should maintain fair policies and practices. If it were to compensate Telesat for its displacement costs in the present proceeding, this would run against the Spectrum Policy Framework and historical precedent. If ISED were to depart from its established policy and precedent, Xplornet submits that this should be done for all impacted parties, and displacement costs should be provided to all impacted parties, including WBS licensees and licensees impacted by the repurposing of the 3500 MHz Band in 2021 and beyond.

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<sup>24</sup> See, *Communications Act of 1938*, Title III, section 316, and the FCC discussion at Report and Order, paragraph 140.

**Issue 5: It is inappropriate for Telesat to attempt to leverage a spectrum reallocation process to obtain support for its LEO constellation**

71. As part of its request to maintain the proceeds from the sale of the 3700-3900 MHz band of spectrum, Telesat has stated that it intends to compensate itself for its displacement costs and then to invest the proceeds in its LEO satellite constellation.<sup>25</sup>
72. While we have submitted that Telesat should not be entitled to compensation for its displacement costs above, we equally submit that it is inappropriate for Telesat to attempt to leverage ISED's spectrum reallocation process to obtain support for its new LEO constellation business venture.
73. ISED's repurposing process is not the right venue for Telesat to receive support for its LEO constellation. The Government of Canada has dedicated significant amounts of funding to support broadband infrastructure projects, including LEO satellites. Budget 2018 allocated \$100 million from the Strategic Innovation Fund to support projects focused on LEO satellites and next-generation rural broadband. Telesat has received \$85 million from the Strategic Innovation Fund to build and test technologies for its LEO constellation. Budget 2019 proposed \$5 to \$6 billion in funding to support rural broadband, including securing advanced LEO satellite capacity. And the Government of Canada has entered into a Memorandum of Understanding with Telesat, through which it has committed to provide up to \$600 million to Telesat over 10 years to support its LEO constellation.<sup>26</sup>
74. Through its proposal, Telesat has argued that Canadians should forego the proceeds of an ISED-run auction to allocate the 3700-3900 MHz band. If this spectrum were auctioned by ISED, the proceeds from the auction would be transferred to Finance Canada and deposited into the Consolidated Revenue Fund as part of Canada's general revenues. Parliament would then decide how

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<sup>25</sup> Telesat Proposal, paragraph 10.

<sup>26</sup> <https://www.canada.ca/en/innovation-science-economic-development/news/2019/07/minister-bains-announces-major-investment-in-the-future-of-connectivity-for-canadians-living-in-rural-and-remote-communities.html>

Canada's revenues should be allocated in order to best meet the needs of Canadians as part of the federal budget process.

75. By seeking to divert auction proceeds from the Consolidated Revenue Fund, Telesat is attempting to circumvent Parliament's role in managing Canada's public resources in the best interests of Canadians for its own benefit. Xplornet submits that it is inappropriate for Telesat to attempt to interfere with the federal budget process. Parliament has allocated significant funds to the support of LEO satellite projects and Telesat should seek support for its investment through the appropriate channels. ISED should reject Telesat's attempt to leverage the present spectrum reallocation process to obtain financial support for its LEO constellation.

**Recommendation 4: ISED should strive to align the 3650-3900 MHz band with the 3500 MHz Band to promote the operation of the 3450-3900 MHz frequency range as a single block of spectrum (Guideline (d))**

76. As we discussed above, Xplornet supports the relocation of the WBS band to the 3900-3980 MHz band in order to allow for a single contiguous band of licensed flexible-use spectrum from 3450-3900 MHz. By creating a single large block of mid-band flexible-use spectrum, ISED will best position operators to achieve the blocks of 100 MHz of contiguous spectrum that are optimal to allow for efficient 5G deployments.
77. In this regard, we recommend that, in designing its policy framework for the 3800 MHz Band, ISED should strive to align this framework with that of the 3500 MHz Band to the greatest degree possible. For example, we recommend that ISED align conditions of licence for spectrum across the 3450-3900 MHz frequency range. Aligning these spectrum bands in this manner would promote the introduction of efficient regulation, as directed by Guideline (d) of the Spectrum Policy Framework.
78. It is likely that matters of this nature may be better addressed as part of a subsequent consultation to set the parameters for the allocation of spectrum in the 3650-3900 MHz band.

## **CONCLUSION**

79. In this submission, Xplornet has provided ISED with four recommendations that are intended to assist ISED in designing a policy framework for the 3800 MHz Band that promotes the objective of the Spectrum Policy Framework. Specifically, Xplornet recommends that ISED:

- 1) Permit flexible use in the 3800 MHz Band to the greatest extent possible by releasing the 3650-4000 MHz band as soon as possible and positioning the 4000-4200 MHz band to be made available in the coming years;
- 2) Relocate the WBS band to 3900-3980 MHz in order to better support Canadians who rely on WBS-based services and to maximize the contiguous deployment of spectrum across the full 3450-3900 MHz frequency range;
- 3) Allocate licensed spectrum (i.e., frequencies 3650-3900 MHz) through an ISED-run auction and reject the Telesat Proposal; and
- 4) Strive to align the 3650-3900 MHz band with the 3500 MHz Band to promote the operation of the 3450-3900 MHz frequency range as a single block of spectrum.

80. Xplornet appreciates the opportunity to provide these comments to ISED and looks forward to participating in subsequent stages of this important process.

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