



October 26, 2020

VIA E-MAIL

(ic.spectrumbauctions-encheresduspectre.ic@canada.ca)

Director, Spectrum Regulatory Best Practices
Innovation, Science and Economic Development Canada
235 Queen Street
Ottawa, Ontario K1A 0H5

Re: *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, Canada Gazette, Part I, September 12, 2020, Notice No. SLPB-002-20*

Eutelsat S.A., on behalf of itself and its affiliates (including operators of U.S., Mexican, and French-licensed satellites) (collectively, “Eutelsat”), hereby submits the attached comments in response to Innovation, Science and Economic Development (“ISED”) Canada’s *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, Canada Gazette, Part I, September 12, 2020, Notice No. SLPB-002-20*.

Eutelsat appreciates the opportunity to provide input regarding this important matter. Please do not hesitate to contact the undersigned or Eutelsat’s international regulatory consultant (copied) should any questions arise with respect to this submission.

Respectfully submitted,

/s/

Wladimir Bocquet
Director Regulatory Affairs & Spectrum
Eutelsat S.A.

cc (w/ att.): Carlos M. Nalda
LMI Advisors
2550 M Street, NW
Washington, DC 20037
+1.571.332.5626
cnalda@lmiadvisors.com

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)

Comments of
Eutelsat S.A.

October 26, 2020



1. Eutelsat S.A., on behalf of itself and its affiliates (including operators of U.S., Mexican, and French-licensed satellites authorized to serve Canada) (collectively, “Eutelsat”), appreciates the opportunity to provide input on Innovation, Science and Economic Development (“ISED”) Canada’s *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*, *Canada Gazette*, Part I, September 12, 2020, Notice No. SLPB-002-20 (the “3800 MHz Consultation”). Eutelsat hereby submits its comments (i) opposing the unjustified attempt of Telesat Canada (“Telesat”) to claim for itself and exclusively monetize hundreds of megahertz of terrestrial spectrum; and (ii) responding to specific questions asked by ISED.
2. Eutelsat operates satellites on ISED’s list of foreign satellites approved to provide fixed-satellite service (“FSS”) in Canada.¹ Eutelsat provides FSS services in Canada, including traditional international communications and video distribution services, using the frequencies at issue in this proceeding. As a result, Eutelsat has a direct and material interest in the outcome of the 3800 MHz Consultation.
3. Eutelsat welcomes the 3800 MHz Consultation and ISED’s efforts to facilitate access to additional spectrum for terrestrial flexible use services. Eutelsat appreciates ISED’s desire to adopt an approach that recognizes the unique characteristics of the Canadian communications marketplace and the value that both satellite and terrestrial wireless systems bring to Canadian consumers. Eutelsat urges ISED to adopt regulations that enable access to this spectrum for both FSS and flexible use services to the extent possible.
4. Efforts to transition FSS spectrum to terrestrial flexible use services have been underway for some time. Interested parties, including C-band satellite operators seeking to mitigate the impact of such efforts, have participated actively in ITU technical studies regarding spectrum sharing and national rulemakings to adopt appropriate rules to maximize the value to the public of spectrum transition. In the United States, for example, the Federal Communications Commission (“FCC”) rejected the proposal of the C-Band Alliance² to conduct a private sale of spectrum on the secondary market to wireless providers, opting instead for an FCC-administered auction and band-clearing approach (*see* Report and Order and Order of Proposed Modification, GN Docket No 18-122 (rel. Mar. 3, 2020), the “C-Band R&O”). This approach focused on maximizing the value of terrestrial wireless spectrum to the public, while incentivizing satellite operators to clear spectrum rapidly for flexible use.
5. Specifically, the FCC concluded that it should auction 280 MHz of spectrum from 3700-3980 MHz for flexible use in the 48 contiguous United States (“CONUS”). In addition, it decided to implement a 20 MHz guard band at 3980-4000 MHz and to relocate FSS operations in the CONUS to the 4000-4200 MHz band. With the exception of certain consolidated telemetry,

¹ *See* List of foreign satellites approved to provide fixed-satellite services (FSS) in Canada (available at <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf02104.html>).

² The C-Band Alliance was formed in late-2018 when Telesat agreed to join Eutelsat, Intelsat, and SES in proposing secondary market-based transactions to facilitate the transition of 3800 MHz satellite spectrum to 5G terrestrial use. Eutelsat subsequently withdrew from the group to advocate for a transition approach that was more closely aligned with sound spectrum management and public policy principles.

tracking and command (“TT&C”) sites, the 3700-4000 MHz band must be cleared by December 2025. Satellite and earth station operators are entitled to reimbursement of relocation costs, and satellite operators are eligible for accelerated relocation payments for clearing the band early. The funds to provide payments to eligible incumbent operators will come from payments made by new flexible use licensees in the band. Given the large scope of the relocation effort and significant payments involved, as well as a desire to ensure independent and transparent processes, the FCC also provided for a payment clearinghouse and relocation coordination to assist with the relocation.

6. As discussed in its responses to specific questions included in the 3800 MHz Consultation, Eutelsat believes that the C-Band R&O provides useful guidance for ISED’s decisionmaking with respect to an appropriate framework to facilitate the transition to flexible use services. However, not every decision adopted by the FCC would be appropriate given the significant differences between the Canadian and U.S. communications markets and other factors. For example, Eutelsat believes that ISED should preserve earth station access to the 3700-4200 MHz band on a primary (protected) basis in satellite-dependent areas (“SDAs”). Eutelsat also believes that ISED should allow for earth station access to the 3700-4000 MHz band on a no-protection basis throughout Canada given population density/geographic area factors similar to those that motivated the FCC to exclude Alaska from the C-band transition.
7. Telesat Canada recently submitted a proposal suggesting that (i) Telesat is the sole “space station spectrum licensee” in the 3800 MHz band; (ii) ISED should transition 380 megahertz of spectrum in the 3700-4080 MHz band for flexible use services and implement a 20 megahertz guard band at 4080-4100 MHz; and (iii) ISED should grant Telesat an exclusive, nationwide flexible use licence for 200 megahertz of spectrum in the 3700-3900 MHz band, along with the right to fully monetize that licence on the secondary market, in exchange for transitioning Canadian earth stations operating in the 3700-4100 MHz band to the 4100-4200 MHz band (*see* Fast tracking affordable, Canada-wide 5G and universal connectivity with 3800 MHz spectrum, Telesat Canada (July 5, 2020), the “Telesat Proposal”). The Telesat Proposal is similar in many ways to the C-band Alliance proposal rejected by the FCC, except that Telesat incorrectly suggests it has exclusive rights to spectrum that is shared with other satellite operators in Canada.
8. The Telesat Proposal is contrary to the best interests of Canadian consumers. Telesat would be unjustly enriched with the value of 200 megahertz of flexible use spectrum rather than returning the value of such spectrum to the public through an auction process. Like the FCC in the C-Band R&O, ISED should conclude that such an approach (i) is inconsistent with the rights held by Telesat; (ii) is contrary to governing law and regulation; (iii) is unjust and anticompetitive; and (iv) is not in the best interest of Canadian consumers. Telesat seeks unprecedented compensation via a flexible use license in more than half of the spectrum it proposes should be made available, even though it holds only a non-exclusive authorization to operate satellite downlinks in the band. Grant of such a licence also would be inconsistent with Canadian law and regulation, which plainly establish the Telesat has no exclusive claim

to the spectrum and provides for compensation only in very limited circumstances.³ Allowing Telesat to monetize terrestrial spectrum to support unrelated satellite initiatives would constitute unjust enrichment and would significantly distort competition, especially since it shares the spectrum at issue with other satellite operators that will compete with Telesat in these and other bands. Finally, such an approach would be contrary to the best interests of consumers by depriving the Canadian public of the full economic value of the spectrum.

9. The use of funds from the resale of terrestrial spectrum to subsidize Telesat's LEO project provides an independent basis for rejection. The Ka-band LEO constellation is entirely unrelated to Telesat's C-band satellite operations and the transition of spectrum in the 3800 MHz band. Such an approach would raise significant World Trade Organization subsidy concerns. There is also no economic justification to allow Telesat to monetize terrestrial spectrum over which it has no claim, especially given the large acceleration payments for which Telesat is already eligible as a result of U.S. band clearing efforts.⁴ Moreover, new satellites are being acquired by others (as a reimbursable U.S. relocation expense) that also may facilitate relocation efforts in Canada. And, of course, other GSO and NGSO systems are being deployed – without the unjustifiable subsidies sought by Telesat – that will be capable of serving the Canadian market.
10. There is also no basis to suggest that only Telesat can facilitate transition of earth station operations to the upper portion of the 3800 MHz band and provide new satellite facilities to avoid the loss of or avoid disruption to existing services to users in Canada. In the United States, pursuant to the C-Band R&O, each satellite operator is primarily responsible for clearing its CONUS earth station customers from the 3700-4000 MHz band because each satellite operator is in the best position to manage its own capacity to meet its customers needs. ISED should require satellite operators to do the same in Canada rather than unnecessarily interposing Telesat in the process.
11. The detailed transition plans, equipment supply chains, and institutional knowledge being developed in the U.S. process will facilitate band-clearing in Canada, which involves a small percentage of the total number of earth stations being relocated in the United States. Although some differences in approach are necessary to accommodate the unique needs of the Canadian market, *e.g.*, preserving access to the 3700-4000 MHz band in SDAs, access to the band on a no-protection basis elsewhere in Canada and preserving the 4000-42000 MHz band for primary FSS operations will provide flexibility to facilitate the transition and

³ An assignment of frequencies to an operator “does not confer a monopoly on the use of the frequency or frequencies, nor shall a radio authorization be construed as conferring any right of continuing tenure in respect of the frequency or frequencies;” Radiocommunication Regulations, Assignment of Frequencies, § 40; and the Radiocommunication Act authorizes compensation only in circumstances where the Canadian government takes possession of a radio station and all things necessary to the sufficient working of that radio station. *See* Radiocommunication Act § 7(3).

⁴ Pursuant to the C-Band R&O, Telesat is eligible for USD\$344,400,000 in acceleration payments, as well as reimbursement for relocation costs.

enough spectrum to meet future needs. As a result, although reimbursement of actual transition costs may be appropriate, no additional economic incentives are necessary to facilitate earth station relocation in Canada.

12. In sum, Eutelsat believes that ISED should look favorably on the 3800 MHz transition approaches embodied in the C-Band R&O and leverage the benefits of that decision to the extent possible. ISED should (i) pursue a public auction to secure maximum value of flexible use licenses for the Canadian public; (ii) leverage the band-clearing efforts underway in the United States to accelerate the 3800 MHz transition in Canada; (iii) permit earth station access to the 3700-4000 MHz band on a no-protection basis and preserve earth station access to the 3700-4200 MHz band on a primary (protected) basis in DPAs; and (iv) reject the entirely unsupported and exclusively self-serving secondary market-based approach suggested by Telesat as fundamentally inconsistent with the rights it holds, applicable law and regulation, and the best interests of Canadian consumers.

ANNEX 1: RESPONSES TO CONSULTATION QUESTIONS

Q1 ISED is seeking comments on the timelines for the development of an equipment ecosystem using 5G technologies in the 3800 MHz band. In particular:

- the ecosystem maturity level and readiness of equipment under band classes n77 or n78 for the Canadian market
- the ability of existing or future base station radios to handle multiple technologies and band classes at the same time (i.e. whether all four band classes (B42, B43, n77 and n78) or a subset of these band classes are able to operate on the same base station radio) and how it may affect the adoption of 5G technologies in the 3800 MHz band

A1 Eutelsat does not take a position on this issue.

Q2 ISED is seeking comments on the potential linkages between the equipment ecosystems using 5G technologies in the 3500 MHz and 3800 MHz bands. In particular:

- whether contiguity between the 3500 MHz band and 3800 MHz band is preferred given that 3GPP specifications allows for non-contiguous carrier aggregation
- whether there are any technical or operational impediments (e.g. equipment limitations/challenges to support aggregated use of spectrum, or requirements for additional base station radios) that would be incurred if operators have a large frequency separation between frequency blocks in one or both bands, and at what point (i.e. how wide the frequency separation) such impediments would become significant
- whether the equipment ecosystem deployed for the 3500 MHz band will be able to operate in the 3800 MHz band, and whether this equipment could easily be extended to 3800 MHz after being deployed

A2 Eutelsat does not take a position on this issue.

Q3 ISED is seeking comments on how the difference in technical rules between the U.S. and EU could impact Canada's ability to leverage the economies of scale from the global 3800 MHz ecosystem. In particular: would the difference in technical rules (such as out-of-band-emission (OOBE) power limits) result in two distinct region-specific equipment ecosystems; [and] which equipment ecosystem would be more suitable in the Canadian environment (noting that Canada has, for the most part, aligned with the U.S. on low- and high-band spectrum for 5G but in the mid-band, Canada is more aligned with the EU in the 3500 MHz band (3450-3650 MHz)) and specifically, whether Canada should generally align its technical rules with the U.S. or the EU in the 3800 MHz band

A3 Eutelsat believes that ISED should generally align its technical rules with those developed in the United States in the context of the Federal Communication Commission's ("FCC") rulemaking for Expanding Flexible Use of the 3.7 to 4.2 GHz Band, GN Docket No. 18-122 (the "C-Band R&O"), particularly with respect to OOBE power limits. The same satellites are generally used to serve the Canadian and U.S. markets given their geographic proximity. These satellites will operate most efficiently and effectively if they can provide services in both markets with similar spectrum environments. Such an approach also allows Canada to benefit from the economies of scale from the global 3800 MHz ecosystem given the size of the U.S. market (which European manufacturers also will seek to serve).

Q4 ISED is seeking comments on the proposal to add a primary mobile service, except aeronautical mobile, allocation in the 3700-4000 MHz band to the CTFA and the specific changes shown in annex B.

A4.1 Eutelsat supports the proposal to add a primary mobile service, except aeronautical mobile, allocation in the 3700-4000 MHz band, along with the other changes to the CTFA proposed by ISED, including preserving 200 megahertz of spectrum for primary FSS operations in the 4000-4200 MHz band. Such an approach will ensure flexibility in providing FSS services throughout Canada and maximize broadband satellite capacity in remote areas, while at the same time enabling flexible use services in the 3800 MHz band.

A4.2 Eutelsat believes that long-term authority for FSS receive earth stations to operate on a no-protection basis in the 3700-4000 MHz band (outside satellite-dependent areas or “SDAs” and on a primary basis within SDAs), as well as on a primary basis in the 4000-4200 MHz band, will facilitate the continued availability of broadband satellite capacity in rural and remote areas that may not enjoy the benefits associated with the rapid introduction of 3800 MHz flexible use services. Because receive-only operations cannot adversely impact the provision of flexible use services, opportunistic earth station access to the 3700-4000 MHz band on a no-protection basis constitutes efficient and effective spectrum management. This is true even in areas where flexible use systems may be deployed (in population centers, to facilitate backhaul, etc.) given terrain effects and measures that may be employed by earth station operators to mitigate potential interference.

A4.3 Earth station receive operations in SDAs should be adequately protected. ISED has undertaken studies of the separation distances necessary to protect earth station receive operations (*see* Consultation Document, Section 7.3, para. 59). ISED also should remain cognizant of relevant reports and ongoing studies regarding spectrum compatibility between satellite and terrestrial services (*see, e.g.,* <https://www.itu.int/pub/R-REP-S.2368>), as well as work underway by ITU study groups and technical industry working groups associated with the FCC C-Band Proceeding. ISED should establish appropriate separation distances around SDAs that should apply to 3800 MHz flexible use services absent coordination with relevant earth station operators.

A4.4 Eutelsat would also note that continued deployment of telecommunications infrastructure may alleviate or eliminate the dependence of certain SDAs on satellite broadband connectivity. Regular review of the status of SDAs, as well as adequate notice that such status may be altered, will allow earth station operators to adjust as necessary (including continued receive-only operations on a non-protection basis) to accommodate the potential introduction of flexible use services in an area.

Q5 ISED is seeking comments on developing a flexible use licensing model for fixed and mobile services in the 3650-4000 MHz band.

A5 Eutelsat supports the development of a flexible use licensing model for fixed and mobile services in the 3650-4000 MHz band to afford service providers flexibility to tailor wireless services to the needs of Canadian customers. Flexible use service providers can be relied on to

provide an appropriate mix of services and to address deployment and compatibility issues. However, appropriate guard bands and OOB limits should be adopted to protect FSS operations in the 4000-4200 MHz band. It is also important to protect FSS earth station receive operations in SDAs (*see* Paragraph A4.2, above).

Q6 Given the proposal in section 7.2 on developing a flexible use licensing model for fixed and mobile services in the 3650-4000 MHz band, ISED is seeking comments on the proposal that no new FSS earth stations be authorized in the 3700-4000 MHz band in the future and that the authorization of new FSS earth station licences be limited to the 4000-4200 MHz band.

A6.1 Eutelsat believes that ISED should continue to grant new licences for FSS earth station operations on a primary basis in the 3700-4000 MHz band in SDAs and authorize FSS earth station operations on a no-protection basis in the 3700-4000 MHz band throughout Canada. The population density and infrastructure throughout significant parts of Canada suggests that there may be limited deployment of 3800 MHz flexible use services in certain geographic areas. If flexible use services are deployed in an area, the existence of receive-only earth stations will have no impact on those services. Accordingly, ISED should preserve the potential for opportunistic, no-protection use of the 3700-4000 MHz band to serve Canadian consumers.

A6.2 Similarly, although the FCC adopted a policy that no new FSS earth stations be authorized in the 3700-4000 MHz band in the future, this policy applies in the lower 48 contiguous United States (“CONUS”) only. Thus, the FCC concluded that satellite and earth station operators serving remote and sparsely populated regions, such as Alaska, should have access to the entire band. The FCC did, however, reject the potential for earth stations within CONUS to operate on a no-protection basis with the 3700-4000 MHz band. In addition, the use of the band in Alaska, along with advances in satellite design such as regenerative payloads, suggest that satellite capacity will continue to be available for such operations.

Q7 ISED is seeking comments on the proposal to implement a 20 MHz guard band between 3980-4000 MHz to protect FSS operations in 4000-4200 MHz band from proposed flexible use operations in the 3700-3980 MHz band.

A7 Eutelsat supports ISED’s proposal to implement a 20 MHz guard band between 3800 MHz flexible use services and earth station receive operations. As noted above, generally aligning ISED’s technical rules with those of the FCC will facilitate the efficient and effective provision of both FSS and flexible use services. ISED should also adopt OOB limits and provisions to protect FSS earth station operations in SDAs.

Q8 ISED is seeking comments on the proposal to maintain a primary allocation to FSS in the entire 3700-4200 MHz band and the proposal that existing FSS earth stations in satellite-dependent areas remain licensed in the entire 3700-4200 MHz band.

A8 Eutelsat supports the proposal to maintain a primary allocation to FSS in the entire 3700-4200 MHz band to support the provision of services in SDAs and the associated note allowing earth station receive operations on a no-protection basis in the 3700-4000 MHz band. Such an approach avoids the need for modification of space station operating authority or market access

grants to foreign satellite operators and, in turn, avoids potential questions regarding the status of satellite operations in the 3700-4000 MHz band from an international coordination or continuation of use standpoint.

Q9 ISED is seeking comments on the future demand for C-band in rural and remote areas such as the North, including the following:

- the trend towards using higher frequencies by FSS operations to provide broadband connectivity
- the ability of using higher frequencies to replace current C-band capacity and the potential timelines
- the possibility of a trend towards using 4000-4200 MHz in combination with other connectivity options (e.g. higher frequencies satellites or wireline solutions) and when it would be expected to be available for satellite-dependent areas

A9.1 Eutelsat has experienced continuing demand for C-band FSS satellite services in remote areas, such as Alaska, given cost and performance advantages over services provided in higher frequency bands. Without commenting on the potential availability of long-promised NGSO broadband systems, and acknowledging the limitations of GSO satellites to serve extreme northern latitudes, C-band links are better able to overcome longer paths and atmospheric/rain fade considerations than links in higher bands. Thus, Eutelsat believes that there should always be a place for C-band FSS services in Canada, especially because C-band can provide lifeline connectivity to rural and remote areas without impacting the availability of 5G services to the overwhelming majority of Canadian consumers.

A9.2 The principal driver for additional 5G spectrum is the “spectrum crunch” in urban/ultra-urban areas. Given high cost and deployment timelines of 5G and other connectivity options, it is difficult to predict the availability of viable connectivity alternatives in rural and remote areas, particularly given Canada’s large geographic area and widely dispersed population in the North. Nonetheless, even if alternatives become available, Eutelsat urges ISED to maintain the option to utilize the entire 3700-4200 MHz band for FSS services (including the 3700-4000 MHz band on a no-protection basis) because earth station receive operations do not adversely affect terrestrial wireless services.

Q10 In addition to capacity requirements, ISED is seeking comments on other issues that should be considered in maintaining broadband connectivity in satellite-dependent areas.

A10 In addition to capacity requirements, link performance is an important consideration in maintaining broadband connectivity in SDAs. As noted above, C-band satellite links are more reliable than those provided in higher frequency bands.

Q11 ISED is seeking comments on its proposal to remove the FSS allocation in the 3500-3650 MHz band and to suppress Canadian footnote C20 in the CTFA as detailed in annex B. In addition, ISED is seeking comments on the proposed grandfathering of the existing earth station operations listed in annex C, such that fixed or mobile stations in the 3500-3650 MHz band will be required to coordinate with these earth stations as specified in SRSP-520.

A11 Eutelsat does not take a position on this issue.

Q12 ISED is seeking comments on its proposal to remove the primary FSS allocation from 3650- 3700 MHz and suppress Canadian footnote C33 in the CTFA as detailed in annex B.

A12 Eutelsat does not take a position on this issue.

Q13 ISED is seeking comments on:

- establishing unpaired blocks of 10 MHz for the 3650-3700 MHz band
- establishing unpaired blocks of 10 MHz for the 3700-3980 MHz band

A13 Eutelsat does not take a position on this issue.

Q14 Subsequent to changes to the spectrum utilization described in [section 7](#) and recognizing the need to change the current WBS licensing model, ISED is seeking comments on its proposal to displace the existing WBS licensees and designate 80 MHz of spectrum available for the development of a new shared licensing process in the 3900-3980 MHz band as described in Option 2. Specifically, ISED is seeking comments on:

- the amount of spectrum proposed (80 MHz) under a shared spectrum licensing process
- whether there should be a provision that allows certain users (e.g. existing WBS licensees) priority licensing (e.g. an initial application window before accepting applications from others)

A14 Eutelsat does not take a position on this issue.

Q15 Given the proposal to implement Option 2, ISED is seeking information on potential costs such as upgrading equipment, which may be incurred by WISPs that are displaced from 3650-3700 MHz to provide services using the 3900-3980 MHz band.

A15 Eutelsat does not take a position on this issue.

Q16 Based on the proposal to implement Option 2, ISED is seeking comments on the proposed displacement deadlines, with WBS operations in urban areas being displaced by December 2023 and all others by December 2025. Respondents are invited to propose other protection and displacement options for consideration, provided they include a strong rationale.

A16 Eutelsat does not take a position on this issue.

Q17 ISED is seeking comments on the Tier 4 service areas that would be considered urban as defined above and as listed in [annex D](#).

A17 Eutelsat does not take a position on this issue.

Q18 ISED is seeking comments on whether the moratorium should be extended to include all Tier 4 service areas.

A18 Eutelsat does not take a position on this issue.

Q19 ISED is seeking preliminary comments on the future spectrum licensing process for 3900-3980 MHz, including the following:

- what type of applications are envisioned for this spectrum
- what type of shared licensing process ISED should consider (e.g. database approach, licensee to licensee coordination)
- what additional measures ISED should consider employing to manage access to the band in high demand areas, such as major metropolitan centres
- what technical restrictions should be considered (e.g. technical rules similar to adjacent 3500 MHz flexible use band with reduced power levels, a guard band between new flexible use systems below 3900 MHz, shared use above 3900 MHz, etc.)
- what type of eligibility criteria, if any, should be established

A19 Eutelsat does not take a position on this issue.

Q20 ISED is seeking comments on its proposal that existing FSS earth stations licensed in 3650-3700 MHz after June 11, 2009, be permitted to continue to operate on a no-protection basis with respect to proposed new flexible use operations.

A20 For the reasons discussed above regarding receive-only earth station operations on a no-protection basis in the 3700-4000 MHz band, Eutelsat supports the potential for continued receive-only earth station operations on a no-protection basis in 3650-3700 MHz band.

Q21 ISED is seeking comments on whether the Tier 4 service areas identified for exemption of certain provisions in GL-10 for mmWave bands as listed in [annex E](#) would be appropriate to apply for FSS operations in the 3700-4200 MHz band. ISED invites alternative proposals for areas that would be considered satellite-dependent (e.g. based on Tier 5 categories).

A21 Eutelsat does not take a position on this issue.

Q22 ISED is seeking comments on whether certain remote industry operations, for example offshore oil drilling platforms, should be included in the definition of satellite-dependent areas.

A22 The potential for receive-only earth station operations on a no-protection basis in the 3700-4000 MHz band should enable satellite services to support remote industry operations. Offshore drilling platforms and remote locations without nearby flexible use service deployment can be served using 3800 MHz spectrum. If flexible use services have been deployed, they may be leveraged to provide such connectivity. Therefore, Eutelsat believes that including remote industries in the definition of SDAs should not be necessary if ISED permits no-protection earth station access to the 3700-4000 MHz band.

Q23 ISED is seeking comments on its proposal to modify the existing FSS satellite authorizations to limit FSS operations in 3700-4000 MHz in non-satellite-dependent areas of Canada to a no-interference basis. ISED is also seeking comments on the proposal to adjust the conditions of licence for FSS operations to reflect the proposals as of the FSS transition deadline, including the possible removal of a high expectation of renewal for the 3700-4000 MHz portion of the band.

A23 Eutelsat supports the possibility of continuing FSS operations in non-SDAs on a no-interference/no-protection basis in the 3700-4000 MHz band. Any modification to the existing FSS satellite authorizations should allow operation on a protected basis in SDAs of Canada. Eutelsat believes that it is not necessary for ISED to modify the license renewal expectation because receive-only earth station operations on a no-protection basis in the 3700-4000 MHz band cannot adversely affect flexible use services.

Q24 ISED is seeking comments on its proposed date of December 2023 as the Canadian FSS transition deadline.

A24.1 In the C-band R&O, the FCC adopted a deadline for full transition the 3700-4000 MHz band of December 2025. However, the FCC adopted an *accelerated relocation* deadlines of December 2021 and December 2023 for satellite operator eligibility for certain acceleration payments. Eutelsat anticipates that the 3800 MHz band can be effectively transitioned in Canada consistent with the second U.S. accelerated relocation deadline of December 2023. As discussed above, however, there is no need for additional economic incentives to facilitate such expeditious transition. Nonetheless, ISED should consider reimbursement for satellite and earth station operator relocation costs through December 2025 – consistent with the actual relocation deadline adopted by the FCC – to address the potential for additional relocation efforts for no-protection earth stations that are impacted by flexible use deployment between the accelerated and final deadlines.

A24.2 If ISED permits receive-only earth station operations on a no-protection basis in the 3700-4000 MHz band, then satellite operators will have the flexibility to focus band-clearing efforts on areas where flexible use services are likely to be deployed earlier. Unlike in the United States, where the FCC declined to permit operations in the 3700-4000 MHz band on a no-protection basis after the transition, permitting such operations in Canada will substantially ease the burden and reduce the costs of relocation by avoiding unnecessary relocation efforts in rural and remote regions in which new flexible use services are unlikely to be deployed in the near term. In other words, ISED can help ensure that an effective relocation can be achieved by ISED's earlier December 2023 objective by allowing satellite operators and their customers to make reasonable decisions regarding continued operation in the 3700-4000 MHz band on a no-protection basis.

A24.3 Although Eutelsat does not believe that additional economic incentives are necessary to facilitate expeditious transition of the 3800 MHz band in Canada, particularly given the incentives and relocation cost reimbursements associated with the U.S. transition, it believes that satellite and earth station operators should be entitled to reimbursement of actual relocation costs incurred to clear the band. In this context, relocation costs incurred by ISED's December 2023 objective to facilitate the introduction of flexible use services in the 3700-4000 MHz band at that time should be compensable. Moreover, costs incurred subsequently to relocate no-protection earth station operations that may be adversely affected by additional flexible use deployment also should be compensable through December 2025. (No additional relocation or mitigation costs need be compensable after that date.) Eutelsat does not believe that material additional relocation costs will be incurred between December 2023 and December 2025, but it suggests

covering such costs to align with the formal U.S. deadline because ISED is not mandating relocation of all earth station operations from the 3700-4000 MHz band.

A24.4 ISED also should consider adopting an administrative mechanism that would provide notice of intended flexible use system deployment. Such a mechanism would have the dual benefits of enabling ISED to accurately track use of the 3800 MHz band by flexible use services and allowing no-protection, receive-only earth stations to adjust operations to account for planned flexible use deployment. This would help avoid unanticipated disruption of no-protection earth station operations in the 3700-4000 MHz band, especially in rural and remote areas where there may be limited alternatives.

Q25 ISED is seeking comments on how the U.S. transition will impact the availability of FSS capacity in Canada.

A25.1 Eutelsat filed a Petition for Expedited Reconsideration or Clarification of the C-Band R&O with respect to scope of cost reimbursement for new C-band satellite facilities serving the CONUS and related matters (*see* Eutelsat Petition, GN Docket No. 18-122, available at: [https://ecfsapi.fcc.gov/file/10523184488608/Pet%20for%20Recon%20or%20Clarification%20\(2020-05-23\).pdf](https://ecfsapi.fcc.gov/file/10523184488608/Pet%20for%20Recon%20or%20Clarification%20(2020-05-23).pdf)). Eutelsat argued, among other things, that such cost reimbursement should be limited to C-band satellites operating in the 4.0-4.2 GHz band and providing coverage solely to the CONUS for the entire duration of their useful life. Eutelsat's petition remains pending.

A25.2 As part of the U.S. transition, however, at least one satellite operator has proposed to acquire and seek reimbursement for new satellites with capacity throughout the 3800 MHz band, as well as in other bands, and that have coverage of other regions, including Canada. To the extent the FCC does not limit satellite cost reimbursement to satellites operating in the 4.0-4.2 GHz band and providing CONUS-only coverage for the entire duration of their useful life, the U.S. transition may increase the availability of new FSS capacity in Canada.

Q26 ISED is requesting information to assist with the consequent decision following this consultation. This information includes satellite transponder migration plans, frequencies, and how satellite operators serving the Canadian market will accommodate all Canadian customers, and on which frequencies. Requested information could include, but is not limited to:

- the names and number of satellites that will need to migrate to the 4000-4200 MHz band
- the number of new satellites that may be required to serve the Canadian market
- the locations of earth stations communicating with these satellites
- the number of antennas and locations of associated earth stations that will need to be retuned and/or repointed
- the flexibility of existing satellites to modify operations according to the different areas of Canada

This information should be submitted on a confidential basis, as instructed in section 13.

A26 Eutelsat provides this information as requested under separate cover.

Q27 ISED is seeking comments on its proposed transition deadline of December 2023 for FSS earth stations, in which existing FSS earth station licences would be modified to 4000-4200 MHz in the relevant areas.

A27 As noted above, if ISED permits receive-only earth station operations in the 3700-4000 MHz band on a no-protection basis, then satellite operators will have flexibility to focus band-clearing efforts on areas where flexible use services are likely to be deployed earlier and will be able to effectively meet the December 2023 objective. That said, relocation cost-reimbursement should be available through December 2025 and administrative mechanisms should be considered to facilitate tracking of flexible use deployment and no-protection earth station operations in the 3700-4000 MHz band.

Q28 ISED is seeking comments on making amendments to the relevant conditions of licence and technical rules in the 3700-4200 MHz band as well as the 3450-3700 MHz band in order to implement the following proposals with respect to protection from interference:

- prior to the transition deadline, existing licensed FSS earth stations may operate in the entire 3700-4200 MHz band in all areas and be protected from interference from flexible use operations both in-band (3700-3980 MHz) and the adjacent 3450-3700 MHz band
- after the transition deadline, existing licensed FSS earth stations may continue to operate in the entire 3700-4200 MHz band in satellite-dependent areas and be protected from interference from in-band flexible use operations in 3700-3980 MHz, but would not be protected from flexible use operations in the adjacent 3450-3700 MHz band; however, ISED also proposes that flexible use licensees deploying stations in the 3450-3700 MHz band within 25 km of an existing licensed FSS earth station in the 3700-4200 MHz band be required to provide a notification to these operators, one year prior to the deployment of fixed or mobile stations
- after the transition deadline, FSS earth stations would only be licensed to operate in the 4000-4200 MHz band in non-satellite-dependent areas and would be protected from flexible use operations in the adjacent 3700-3980 MHz band
- after the transition deadline, FSS earth stations operating in 3700-4000 MHz, in all areas, which are not eligible for licensing could continue to operate as a licence-exempt station without protection from flexible use operations both in-band and adjacent band(s)

A28.1 Eutelsat supports the efforts of ISED to preserve FSS earth station operations in the 3800 MHz band and protect primary FSS operations from interference to the extent possible. Eutelsat also supports the approach outlined above, subject to adoption of appropriate OOB power limits.

A28.2 In this connection, Eutelsat notes the work of Technical Working Group #1, as part of U.S. transition efforts, to develop a document entitled “Best Practices for Terrestrial-Satellite Coexistence During and After the C-Band Transition.” Still under development by satellite and wireless industry representatives, this document seeks to define best practices for flexible use licensees and FSS operators. Eutelsat urges ISED to consider the recommendations developed in this process and in related FCC rules to facilitate the introduction of flexible use services.

Q29 ISED is seeking comments on the proposed change to the CTFA to add the new footnote CZZ proposed above and shown in annex B.

A29 As noted above, Eutelsat supports ISED's proposed changes to the CTFA.

Q30 ISED is seeking comments on how to ensure the continued operation of gateways that support the provision of services in satellite-dependent areas, specifically:
how much spectrum would be required at these gateway sites if these stations could be consolidated into two sites, away from major population centres, and where the best locations for those sites would be.

A30 Eutelsat supports continued primary (protected) earth station operations throughout the 3800 MHz band in SDAs and thus believes that no special gateway considerations are necessary. A separation distance from SDA boundaries can be implemented to enable FSS operations anywhere within the SDA, whether gateway earth station or remote terminal operations. In this connection, ISED's own studies suggest that a separation distance of at least 60 km may be necessary (*see* 3800 MHz Consultation, Section 7.3, para. 59).

Q31 ISED is seeking comments on its proposal to issue interim authorizations for certain existing licence-exempt earth stations in the 3700-4200 MHz band.

A31 Eutelsat generally supports ISED's interim authorization approach.

Q32 ISED is seeking comments on the proposed deadline of up to 90 days after the publication of a decision for submitting applications for these interim authorizations of existing licence-exempt FSS earth stations in the 3700-4200 MHz band.

A32 Eutelsat supports the proposed deadline for applying for interim authorizations.

Q33 ISED is seeking comments on its proposal that receive-only earth stations that are not eligible for an interim authorization or whose operators do not seek authorization, could continue to operate as a licence-exempt earth station on a no-protection basis.

A33 As discussed above, Eutelsat supports ISED's proposal to permit earth station operations on a no-protection basis. Eutelsat believes this also should include licence-exempt, receive-only earth stations.

Q34 ISED is seeking comments on its proposal that in non-satellite-dependent areas, existing earth stations that operate under interim authorizations receive in-band protection from flexible use operations in the 3700-3980 MHz band until the transition deadline.

A34 Eutelsat believes that existing earth stations that operate under interim authorizations in non-SDA regions should receive in-band and any other applicable protections until the transition deadline.

Q35 ISED is seeking comments on its proposal that in satellite-dependent areas, existing earth stations that operate under an interim authorization receive in-band protection from flexible use operations in the 3700-3980 MHz band before and after the transition deadline.

A35 Eutelsat believes that existing earth stations that operate under interim authorizations in SDAs should receive in-band and any other applicable protections before and after the transition deadline.

Q36 ISED is seeking comments on its proposal that in all areas, existing licence-exempt earth stations that operate under an interim authorization receive no protection from adjacent band WBS stations and flexible use stations operating below 3700 MHz before and after the transition deadline.

A36 Eutelsat believes that WBS stations and flexible use stations operating below 3700 MHz should be compliant with permitted power levels and OOB limits, but no additional protections should be required.

Q37 ISED is seeking comments on whether the interim authorization process should also apply to new receive-only FSS earth stations in the 4000-4200 MHz band.

A37 Eutelsat believes that the interim authorization process can be used to authorize new receive-only FSS earth stations in the 4000-4200 MHz band. Additional long-term authorization procedures should be developed for new receive-only FSS earth stations in the 4000-4200 MHz band.

Q38 ISED is seeking comments on the proposed conditions for interim authorizations for licence-exempt FSS earth stations in 3700-4200 MHz and new receive-only FSS earth stations in the 4000-4200 MHz portion of the band as detailed in annex G.

A38 Eutelsat supports conditions proposed in annex G for interim authorizations for licence-exempt FSS earth stations in 3700-4200 MHz band and new receive-only FSS earth stations in the 4000-4200 MHz portion of the band.

Q39 ISED is seeking comments on the proposed eligibility of licence-exempt stations that could apply for an interim authorization.

A39 Eutelsat believes that all eligible entities could apply for an interim authorization for existing licence-exempt FSS earth stations, including: remote enterprise networks, such as those used in the mining and energy sectors, and those used by individuals to directly receive satellite broadcast signals intended for the general public. Eutelsat also believes that all receive-only earth stations should be permitted to continue operations and be eligible for compensated relocation through December 2025.

Q40 ISED is seeking comments on its proposal to no longer issue new licences for fixed services to operate fixed point-to-point applications in the 3700-4000 MHz band.

A40 Eutelsat does not take a position on this issue.

Q41 ISED is seeking comments on whether to allow new licences for fixed services to operate fixed point-to-point applications in the 4000-4200 MHz band.

A41 Eutelsat believes that it is not advisable to allow new licences for fixed services in the 4000-4200 MHz band to avoid aggregate interference into FSS earth stations, which will be concentrated in this band in many areas of Canada.

Q42 ISED is seeking comments on the proposal to grandfather existing point-to-point operations in the 3700-4000 MHz band under existing licences for fixed service (as identified in annex A), such that flexible use systems in these two tiers may not claim protection from, nor cause interference to these fixed service stations.

A42 Eutelsat does not take a position on this issue.

Q43 ISED is seeking comments on the proposal to rely on technical limits and coordination procedures rather than mandate specific technology solutions (e.g. TDD synchronization between systems) to address interference issues between TDD flexible use systems in the 3650-3980 MHz band.

A43 Eutelsat would support implementation of an approach aligned with that embodied in the C-Band R&O. In this way, ISED will ensure that flexible use service providers in Canada enjoy the same operational flexibility and economies of scale as their U.S. counterparts.

Q44 ISED is seeking comments on whether any additional measures should be taken to limit potential interference issues between flexible use systems in the 3650-3980 MHz band.

A44 In order to avoid potential interferences issues, Eutelsat suggests that ISED align its technical rules with those adopted in the C-Band R&O. In addition to Technical Working Group #1, several other technical working groups are pursuing efforts to facilitate the introduction of flexible use services. ISED should leverage the work of these groups in developing appropriate rules for 3800 MHz flexible use services in Canada.

Q45 ISED is seeking comments on whether specific technical measures should be adopted to address potential interference issues between flexible use systems and WBS systems until the displacement deadline.

For co-channel flexible use and WBS operations in the 3650-3700 MHz band, what specific measures may be needed to protect WBS? For example, should new flexible use stations be required to coordinate with WBS stations within a specified distance prior to deployment? Alternatively, should a technical parameter such as a power flux density (pfd) trigger for coordination measured at the WBS receive antenna be adopted? Are there other more appropriate measures that ISED should consider? Should multiple measures, such as a combination of distance and pfd trigger for coordination, be adopted? How would these requirements impact the deployment of new flexible use stations?

For adjacent band flexible use systems, is there a need to adopt any additional measures, beyond what is currently specified in RSS-192 and SRSP-520, to further address coexistence between these flexible use and WBS systems? If so, what should they be? How many flexible use

frequency blocks (or MHz) immediately adjacent to the 3650-3700MHz band could potentially affect WBS systems? How would these requirements impact the deployment of flexible use stations?

A45 Eutelsat Americas does not take a position on this issue.

Q46 Until the transition deadline, in all areas for flexible use in the 3650-3700 MHz band: ISED is seeking comments on the proposal that until the transition deadline, those flexible use licensees deploying stations in 3650-3700 MHz within 25 km of a licensed FSS earth station (not including interim FSS authorization) in the 3700-4200 MHz band will be required to coordinate with the operators in these earth stations.

In providing comments to Q46-Q49, respondents are requested to consider the coordination burdens such coexistence and protection measures could impose on either flexible use services or FSS earth stations.

A46 Eutelsat supports the proposal that all areas for flexible use in the 3650-3700 be coordinated within 25 km of a licensed FSS earth station. Traditional coordination and mitigation measures should facilitate near-term coexistence. Over the long term, Eutelsat believes that such coordination will be unnecessary, subject to appropriate OOB limits.

Q47 After the transition deadline, in all areas for flexible use in the 3450-3650 MHz band: ISED is seeking comments on its proposal that the current SRSP-520 coexistence requirements for flexible use operations in the 3450-3650 MHz band to protect FSS operations in the adjacent band 3700-4200 MHz be removed.

A47 Eutelsat supports ISED's proposal.

Q48 For FSS earth stations licensed in the 4000-4200 MHz band and flexible use in the 3800 MHz band, in all areas: ISED is seeking comments on adjacent band coexistence measures, taking into account the coexistence measures adopted by the EU (i.e. a stringent OOB limit) and the U.S. (i.e. a combination of guard band, a typical OOB limit, pfd limits, and baseline minimum filter specifications for earth station operations) and the current Canadian requirements (i.e. a typical OOB limit and coordination distance):

What are the benefits and technical limitations associated with the above coexistence measures?

Which set of coexistence measures above (i.e. EU, U.S., Canada) is preferred? If applicable, comments are sought on the values of the limits in relation to the supported measures.

Given the proposal in [section 9.1](#) to displace WBS in 3650-3700 MHz and identify 3900-3980 MHz for shared use, are there any additional considerations that may impact the response to a) and b) above?

Which portion of the 3800 MHz band should the above measures be applied to in order to protect FSS in the 4000-4200 MHz band (i.e. how many frequency blocks or MHz)?

A48 As noted above, Eutelsat believes that ISED align its technical rules with those adopted in the C-Band R&O and additional approaches being developed in Technical Working Group #1 and related technical working groups. Leveraging the work of the FCC and these industry

working groups will facilitate expeditious deployment of 3800 MHz flexible use services while protecting FSS operations in Canada to the extent possible.

Q49 ISED is seeking comments on what technical requirements should be imposed to ensure co-channel protection of FSS earth stations from flexible use systems, in the relevant scenarios and timeline as stated in sections 9.5 and 9.6. For example, could the pfd limit of -124 dBW/m²/MHz measured at the earth station antenna proposed by FCC above be used to protect co-channel FSS earth station? Alternatively, should other measures be adopted, such as a separation distance as described in section 7.3? Or should a combination of measures be adopted? If applicable, what are the specific values that should be adopted?

A49 Alignment of ISED's rules and measures with those of the FCC will provide a uniform and predictable operating environment for 3800 flexible use and FSS operations. Thus, a guard band, technical rules including OOB limits, and related measures will adequately address adjacent-band operations. With respect to co-frequency operations near SDAs, the application of uniform technical rules and adoption of the separation distance identified by ISED should adequately address co-frequency operations.

Q50 ISED is seeking comments on whether the assumptions made by the FCC about earth stations, including baseline minimum filter specifications for earth station operations as stated above, are applicable to Canadian operations. Is there any additional information that ISED should consider in the development of appropriate technical rules to enable coexistence both co-channel and in adjacent bands?

A50 Eutelsat suggests taking into consideration the assumptions made by the FCC about earth stations in the FCC C-Band Proceeding, including baseline minimum filter specifications for earth station operations, as well as the work of associated technical working groups that remains underway as part of the U.S. transition process.

Q51 ISED is seeking comments on its proposal to not implement any technical requirements for the coexistence between flexible use operation in the 3650-3980 MHz band and radionavigation operations in the 4200-4400 MHz band, noting the 220 MHz frequency separation between the bands of operation. If this is not sufficient for coexistence, what other measures would be appropriate?

A51 For the 4200-4400 MHz band, ISED should consider ITU-R Recommendation M.2059. Eutelsat believes that the frequency separation of 220 MHz would serve to mitigate the potential for interference between the flexible use allocation and the 4200-4400 MHz band.

Q52 ISED is seeking comments on the use of an auction as the licensing process for the flexible use spectrum that would be considered as the 3800 MHz band, noting a separate consultation process would be issued, if required, to determine the licensing framework for the range 3900-3980 MHz.

A52 Eutelsat strongly supports the use of a public auction process for flexible use spectrum in the 3800 MHz band. ISED has substantial experience with spectrum auctions and a public auction would ensure that the full value of the spectrum is returned to Canadian consumers.

Q53 ISED is seeking general comments on the proposal submitted by Telesat found in annex H, including whether such an approach would be in the best interest of Canadians and more specifically, whether it would result in the faster deployment of 5G services in the affected frequencies; more efficient use of spectrum and what the implications of this repurposing plan would be for other users of the band.

A53.1 Telesat's unsupported and self-serving proposal to unilaterally transition FSS earth station operations in the 3700-4100 MHz band in exchange for an exclusive Tier 1 flexible use licence for 200 megahertz of spectrum in the 3700-3900 MHz band, along with the right to fully monetize that licence on the secondary market, should not be adopted by ISED for many reasons. Each of these reasons alone would warrant rejection of the Telesat Proposal and together they confirm that the proposal is a non-starter.

A53.2 First, the Telesat Proposal is contrary to the best interests of Canadian consumers because Telesat would be unjustly enriched from receiving the value of 200 megahertz of flexible use spectrum (presumably in perpetuity), rather than retaining the value of such spectrum for the Canadian public. The experience in Canada and around the world confirms that auctions are the best way to maximize the value of terrestrial wireless spectrum and ensure spectrum resources are brought to their highest and best use. However, rather than ensuring Canadian consumers receive full value for flexible use spectrum, Telesat seeks to instead claim for itself more than half of the spectrum it proposes should be made available for such services.

A53.2 Second, the Telesat Proposal is inconsistent with the operating rights currently held by Telesat. As an FSS satellite operator, Telesat is authorized by ISED to transmit satellite downlinks to Canadian territory and elsewhere in assigned frequencies from specific orbit locations along the GSO arc. However, Telesat's authorization to serve Canadian earth stations in the 3800 MHz band is not exclusive and many other satellite operators, including Eutelsat, provide service in the band. Despite the fact that it holds only non-exclusive satellite downlink authority, Telesat brazenly seek an exclusive, nationwide, no-cost Tier 1 license for terrestrial flexible use spectrum in contravention of ISED licensing rules and policies. There is no basis to grant such a license to Telesat.

A53.3 Third, the use of funds from the resale of 3800 MHz terrestrial spectrum in Canada to subsidize Telesat's global Ka-band LEO project is inconsistent with the best interest of Canadian consumers. The LEO constellation is entirely unrelated to Telesat's C-band satellite operations and the transition of spectrum in the 3800 MHz band. Allowing such cross-subsidization would raise significant World Trade Organization subsidy concerns, and there is also no economic justification to monetize terrestrial spectrum over which Telesat has no claim to fund such a project. This is particularly true given the large acceleration payments and relocation reimbursements that Telesat will receive as a result of U.S. band clearing efforts. New GSO and NGSO systems are being deployed that are capable of serving the Canadian market and will

ensure that Canadian consumers retain access to satellite broadband capacity without the impermissible subsidies sought by Telesat.

A53.4 There is also no basis for Telesat to suggest that only it can facilitate transition of earth station operations to the upper portion of the 3800 MHz band in Canada. As the FCC determined in the C-band R&O, each satellite operator should be primarily responsible for clearing its CONUS earth station customers from the subject band. The detailed transition plans, equipment supply chains, and institutional knowledge developed in the U.S. process will facilitate a similar transition in Canada. ISED should adopt rules that enable satellite operators to efficiently and effectively transition their own customers, including reimbursement of direct relocation costs, although no additional economic incentives are necessary to facilitate earth station relocation in Canada.

Q54 ISED is seeking comments on whether the Telesat proposal meets ISED's policy objectives outlined in section 3, including:

- a) supporting rural/remote connectivity
- b) promoting competition in mobile services
- c) making more mid-band spectrum available to support 5G services

A54.1 The Telesat Proposal would add cost and complexity to Canada's 3800 MHz transition efforts and deprive the Canadian public of the value of hundreds of megahertz of terrestrial flexible use spectrum without furthering other important ISED policy objectives. In particular, granting Telesat exclusive control over terrestrial spectrum for which it has no claim disadvantages flexible use and FSS providers alike, and therefore would be extremely anti-competitive. It would also be contrary to Canadian law and policy (*e.g.*, a frequency assignment "does not confer a monopoly on the use of the frequency or frequencies, nor shall a radio authorization be construed as conferring any right of continuing tenure in respect of the frequency or frequencies;" Radiocommunication Regulations, Assignment of Frequencies, § 40).

A54.2 Such an approach also would not support rural/remote connectivity, promote competition in mobile services, or make useful additional spectrum available for 5G services. The Telesat Proposal would reserve only 100 megahertz of spectrum for primary FSS services, potentially depriving rural/remote communities of lifeline satellite broadband links. It would also reduce competition in mobile services by driving service providers into the 3900-4080 band, about half of which would be encumbered by border protection issues given the differences between the U.S. and Canadian band plans. Thus, rather than increasing spectrum availability for flexible use services, Telesat control of more than 50% of the terrestrial spectrum it proposes to make available substantially decreases the usable spectrum available to wireless providers for 5G competition, especially in critical border regions where the spectrum is needed most.

Q55 ISED is seeking comments on what elements from sections 7 to 10 of this consultation would still apply or need to change if ISED were to implement the Telesat proposal, in particular:

- a) the proposal for maintaining the primary allocation for FSS in the 3700-4200 MHz band

- b) the proposed implementation of an exemption to transition for satellite-dependent areas and the proposed changes to satellite licenses to apply it
- c) the proposal for treatment of WBS incumbents
- d) the proposal to issue interim authorizations for certain existing licence-exempt earth stations in the 3700-4200 MHz band
- e) technical considerations for coexistence between FSS and flexible use
- f) technical considerations for coexistence between flexible use and aeronautical radionavigation systems
- g) the overall impact on existing users in the 3700-4200 MHz band

A55 Eutelsat respectfully refers ISED to the multiple bases for rejecting the Telesat Proposal and again suggests that ISED align its technical rules with those adopted in the C-Band R&O and additional approaches being developed in Technical Working Group #1 and related working groups. Leveraging the ongoing work of industry will facilitate expeditious deployment of 3800 MHz flexible use services while protecting FSS operations in Canada to the extent possible.

Q56 If ISED were to implement the Telesat proposal, ISED would need to consider the licensing framework for the 3700-3900 MHz band. Thus, ISED is seeking comments on:

- a) whether it should, as proposed by Telesat, issue flexible licences in the 3700-3900 MHz band using the same conditions of licence as those contained in annex H of the 3500 MHz Framework, noting that some conditions may need to be adjusted to reflect the differences in the two bands and the decisions resulting from this consultation process
- b) whether it should issue a single Tier 1 flexible use licence as proposed by Telesat or align with the 3500 MHz band and issue Tier 4 licences
- c) what deployment conditions should apply to these licences including Telesat's proposal that the deployment requirements would only come into force after the Minister approves a transfer
- d) any additional conditions of licence that should apply given the nature of the proposal

A56 For the reasons previously discussed, Eutelsat believe that the Telesat Proposal is not in the best interests of Canadian consumers. No adjustments or additional conditions can overcome the numerous legal and policy deficiencies inherent in the proposal.

Q57 In its proposal, Telesat indicates that it takes no position on ISED imposing a pro-competitive measure such as a spectrum cap or set-aside on the 3700-3900 MHz licences. ISED would review any request for transfer in accordance with provisions related to commercial mobile spectrum through section 5.6 of CPC-2-1-23, *Licensing Procedure for Spectrum Licences for Terrestrial Services*. However, ISED would also consider the competitive implications on the 3500 MHz and 3800 MHz bands and consider pro-competitive measures in accordance with the *Framework for Spectrum Auctions in Canada*. As such, ISED is seeking comments on:

- a) the need for a pro-competitive measure (e.g. spectrum cap or set-aside)
- b) the type of competitive measure that should be applied
- c) the amount of spectrum that should be considered under any such competitive measure

A57 Eutelsat does not take a position on this issue.

Q58 ISED is seeking comments on Telesat's proposals for the transition of FSS earth stations and whether any additional measures are required to ensure a smooth transition.

A58.1 Eutelsat believes that ISED should generally align its approach in the 3800 MHz band with that of the FCC and should reject the Telesat Proposal. Eutelsat also believes that a smooth transition can be facilitated by requiring each satellite operator to transition customer earth stations from the 3700-4000 MHz band to the 4000-4200 MHz band. Each individual satellite operator is in the best position to assess and manage the transition of the earth stations it supports, especially since some earth stations may operate in existing bands on a no-protection basis and not require transition.

A58.2 There is no basis to permit Telesat to engage with and transition the customers of other satellite operators. Furthermore, Eutelsat believes there is no need to involve a third-party coordinator to oversee the 3800 MHz transition in Canada given the relatively limited scope of the transition and the flexibility afforded by continued operations in the 3700-4000 MHz band on a no-protection basis. To the extent ISED concludes that third-party management may be warranted, Eutelsat believes that a fully independent administrator with oversight powers limited to validating relocation costs and facilitating dispute settlement should be considered.

Q59 Telesat's proposal includes ISED allocating an additional 80 MHz for flexible use in the 4000-4100 MHz band. ISED is seeking comments on the feasibility of making this extra spectrum available, specifically:

- a) whether there would be standardized 5G equipment available for this 80 MHz, given that it does not align with the U.S. band plan
- b) whether there would be FSS filters available, given the reduced amount of FSS spectrum and that it would not align with the U.S. band plan
- c) whether there would be enough capacity to continue FSS services in Canada with the proposal to reduce the amount of FSS spectrum to 100 MHz
- d) to what degree would the requirement to protect U.S. FSS earth stations in the border areas have an impact on the ability to deploy flexible use stations near the border and to what degree would this impact the value of this spectrum

A59.1 Eutelsat believes that ISED should generally align its approach in the 3800 MHz band with that of the FCC and should reject the Telesat Proposal. As a result, Eutelsat urges ISED to make the 3700-3980 MHz band available for flexible use services, along with a 20 megahertz guard band, and retain the 4000-4200 MHz band for FSS operations. This should preserve sufficient spectrum to provide satellite broadband connectivity to all areas of Canada, including rural and remote regions, while also providing Canadian consumers all of the value of the spectrum transitioned for flexible use services.

A59.2 Importantly, the FCC concluded that 280 megahertz of flexible use spectrum in the 3700-3980 MHz bands would be sufficient to meet the needs of the United States in this spectrum range, which includes many more consumers in more densely populated areas. There is no basis to conclude that a dramatically different approach to introducing flexible use services in the 3800

MHz band in Canada, including reliance on previously rejected secondary market transactions that would unjustly enrich Telesat, would better serve the interests of Canadian consumers.

A59.3 Eutelsat is also concerned that differences between the Canadian and U.S. band plans could complicate 3800 MHz transition efforts in Canada. For example, there may well be issues associated with FSS filter availability, potential capacity constraints (if only 100 megahertz of spectrum are available for protected FSS services outside SDAs), and coordination complexities associated with protection of U.S. earth stations in the border areas. Aligning ISED's approach with that of the FCC will avoid issues that add unnecessary cost and delay to 3800 MHz transition efforts in Canada.