

ISED Consultation SPB-005-22

Consultation on the Spectrum Outlook 2022 to 2026

Submission from the First Mile Connectivity Consortium

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First Mile Connectivity Consortium
PO Box 104
Fredericton, NB E3B 4Y2
1-888-995-8847
<http://www.firstmile.ca>
info@firstmile.ca

Introduction

1. The First Mile Connectivity Consortium (FMCC) is an incorporated independent not-for-profit national association. Our members are First Nations Internet service providers known as “community/regional intermediary organizations.” Our associate members are university and private sector researchers and others interested in Indigenous and community communications and telecommunication services for the public good. Our work focuses on innovative solutions to digital infrastructure and services with and in rural and remote regions and communities across Canada. More details about our members and activities are available at: <http://firstmile.ca>

Executive summary

2. In this intervention, FMCC reviews the Department’s proposed policy directions, as stated in the draft Spectrum Outlook (2022-2026), including how its spectrum management program can best support Indigenous connectivity.
3. Overall, we raise concerns regarding the role of ISED in these matters and the existing approach taken for consultation with Indigenous governments, organizations and communities. ISED must revisit, review and redefine decision-making processes related to spectrum in a way that upholds First Nations’ rights, title and treaty rights and Canada’s obligation to bring federal ways, policies and other collaborative initiatives and action into alignment with the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), the Crown’s legal duty to consult and collaborate with Indigenous Peoples, and free, prior and informed consent.
4. Given this context we express our concerns with contributing to these consultations. While we assert Indigenous sovereignty over spectrum covering Indigenous territories, we present several recommendations for ISED to consider until that matter is resolved. ISED should:
 - set affordable access for all Canadians as its primary goal;
 - along with other government departments and agencies, initiate a separate forum to review the broad issue of Indigenous spectrum sovereignty and related matters;
 - be more proactive and transparent in publishing information associated with the spectrum licensing process – including for satellite licensing;
 - introduce an Indigenous Priority Window for spectrum;
 - consider requiring an amount of reserve capacity on satellite systems for Public Benefit;
 - work with the CRTC to hold additional consultations with respect to licensing conditions for LEO satellite systems, with a specific focus on Public Benefit requirements that could be included as terms of these licenses.
5. The sections below elaborate on these points.

Indigenous spectrum sovereignty and policy consultation processes

6. FMCC appreciates ISED's recognition of Indigenous connectivity as a core theme in its draft Spectrum Policy Outlook (2022-2026). As well, we note the questions posed by ISED in this and other consultations (e.g., SPB-005-22) regarding the consultative and systemic barriers that Indigenous service providers, businesses and communities accessing spectrum licenses.
7. FMCC has been actively participating in ISED policy consultations since 2014, and in CRTC proceedings since 2012. We have continually stressed that the omission of Indigenous or First Nations in policy discussions and decisions regarding the governance and ownership of a natural resource such as spectrum must be addressed.¹
8. Indigenous rights and lands, as well as legal precedents, agreements and treaties must be considered in any allocation of spectrum to serve Indigenous communities and Canada's rural and remote regions. Any new Spectrum Outlook must take into consideration the requirements, jurisdictions, and rights of Indigenous peoples, including their interests in building and operating infrastructure and services.
9. We question the authority of ISED to administer spectrum on behalf of Indigenous Nations. As Indigenous legal scholars have noted, spectrum is a natural resource that existed prior to the establishment of the states such as Canada, and thus there is a lack of clear jurisdiction over spectrum covering Indigenous regions.² Such a claim may suggest that First Nations and other Indigenous Peoples in Canada are entitled to ownership of this natural resource, and/or to receive a share in the proceeds of the Federal Government's spectrum auctions.
10. Discussions on spectrum policy should not be happening in a consultation framework that positions First Nations as stakeholders and not as the **rights holders** that they are. We need to re-visit, review and redefine decision-making processes related to spectrum in a way that upholds First Nations' rights, title and treaty rights and Canada's obligation to bring federal laws, policies and other collaborative initiatives and action into alignment with UNDRIP.
11. The broad issues of spectrum sovereignty and resource extraction extend beyond the scope of this consultation. Spectrum sovereignty should involve other government departments and agencies, and areas of jurisdiction. As well, it encompasses questions around the sale of a natural resource (spectrum) and the administration/control of the proceeds of that sale. For example, the proceeds of spectrum are currently considered general government revenues; should a similar process not be in place for the proceeds of spectrum sales to accrue to Indigenous governments?

¹ Please refer to our submissions to ISED SLPB-004-21 and SPB-005-22, as well as our submissions to CRTC 2019-406, for examples of our position on these matters.

² Blackwater, Darrah and Murtazashvili, Ilia and Weiss, Martin B. H., Spectrum Sovereignty on Tribal Lands: Assessing the DIGITAL Reservations Act (August 1, 2022). Available at SSRN: <https://ssrn.com/abstract=4178671>

12. On matters of appropriate consultation with Indigenous entities, we fully endorse the 2021 and 2022 Indigenous Connectivity Summit (ICS) Policy Recommendations. FMCC member organizations are involved in the annual ICS and contribute to the formation of these recommendations. These recommendations stress that the Canadian government has an express duty to consult and has the power to meaningfully engage and consult with entities working with Indigenous communities.³
13. Until these concerns are addressed, we believe that the Spectrum Outlook 2022-2026 is in contravention of UNDRIP and the *United Nations Declaration on the Rights of Indigenous Peoples Act*;⁴ the Crown's legal duty to consult and collaborate with Indigenous Peoples; and with free, prior and informed consent as articulated under *Principles Respecting the Government of Canada's Relationship with Indigenous Peoples*⁵ — which builds on and goes beyond the legal duty to consult.
14. We also note that in B.C. the Declaration on the Rights of Indigenous Peoples Act (DRIPA)⁶ provides a legislative framework that can be used to develop an Indigenous rights holder approach to telecommunications policy and regulation. In September 2020, the First Nations Technology Council (an FMCC member organization) developed a document making this argument: Technology Underpins UNDRIP. These and other resources may be helpful for ISED to consult.
15. We are also concerned that appropriate measures have not been taken to ensure that First Nations are engaged and prepared to respond to this proceeding on the future of spectrum policy for the next five years.
16. As well, ISED and the CRTC are presently undertaking other consultations that may have bearing on the issues being considered here. For example, the CRTC has not yet released a decision on CRTC 2019-406 (Barriers to Transport) and is presently considering issues related to the implementation of UNDRIP, economic reconciliation, consultation and other matters in CRTC 2022-147. ISED also very recently concluded consultation SPB-005-22, which includes questions regarding Indigenous connectivity in the context of spectrum.
17. **Recommendation:** ISED, along with other government departments and agencies, should initiate a separate forum to review the broad issue of spectrum sovereignty and related matters. We reiterate the issue of spectrum rights and ownership, and the unique status of First Nations as rights holders, must be acknowledged before any spectrum licensing system over Indigenous land, territories and communities is implemented.

³See: <https://www.internetsociety.org/resources/doc/2021/2021-indigenous-connectivity-summit-policy-recommendations/>

⁴ See: <https://www.laws-lois.justice.gc.ca/eng/acts/u-2.2/page-1.html>

⁵ See: <https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>

⁶ See: https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/ministries/indigenous-relations-reconciliation/declaration_act_action_plan.pdf

18. **Recommendation:** ISED should organize or fund a forum for Indigenous entities (mandated Indigenous organizations) that would allow for open and transparent discussion on the technical and process level topics concerning spectrum. This could serve as a forum to review and discuss policy options.

Economic reconciliation in the context of Spectrum policy

19. We note ISED's statements regarding **economic reconciliation** in the context of spectrum policy. There is a long history of recommendations from Indigenous organizations and governments regarding economic reconciliation in telecommunications policy. From the earliest days of the Internet – and even before that, in contexts related to telephone and broadcasting – Indigenous peoples have advocated for their right to share in the ownership and control of these resources and the economic benefits derived from their development and use. These recommendations extend from initial planning and construction to ongoing management, operations, and maintenance.
20. ISED should develop a definition of economic reconciliation in the context of spectrum policy. For example, “not one Indigenous entity holds a radio frequency spectrum license for the provision of broadband services” (Eeeyou Communication Network (ECN) submission to SBP-003-22, para 55). FMCC agrees with the ECN's concerns.
21. Similarly, we agree with ISED's stated goal of providing “affordable access” for Canadians to telecommunications services. However, neither CRTC nor ISED have defined “affordability”. Clear definitions and guidelines for “affordable access” are needed to assess policy directions and evaluate policy outcomes.
22. We note ISED's stated commitment to promoting rural connectivity by releasing new spectrum and by ensuring that the spectrum licensing regime encourages the deployment of high-speed services in rural areas (para 8, p.13). However, the guiding principles make only two references to rural areas and none to Indigenous Peoples or territories. The updated Spectrum Outlook should make direct reference to Indigenous Peoples and Territories.
23. We also refer to the Calls to Action issued by the Truth and Reconciliation Commission of Canada for guidance on economic reconciliation, and highlight in particular #92, on “Business and Reconciliation”:
- “92. We call upon the corporate sector in Canada to adopt the United Nations Declaration on the Rights of Indigenous Peoples as a reconciliation framework and to apply its principles, norms, and standards to corporate policy and core operational activities involving Indigenous peoples and their lands and resources. This would include, but not be limited to, the following:
- i. Commit to meaningful consultation, building respectful relationships, and obtaining the free, prior, and informed consent of Indigenous peoples before proceeding with economic development projects.

ii. Ensure that Aboriginal [Indigenous] peoples have equitable access to jobs, training, and education opportunities in the corporate sector, and that Aboriginal communities gain long-term sustainable benefits from economic development projects (Emphasis added).⁷

24. We urge the telecommunications industry to join ISED in acting on these recommendations, in the spirit of corporate social responsibility and economic reconciliation. The TRC's call to action provides a framework these companies can use to partner with Indigenous governments, organizations and communities to develop and operate telecommunications systems that enable them to achieve their economic and community development goals.

Question 1: In light of the Government's proposed policy direction to the Canadian Radio-television and Telecommunications Commission on a renewed approach to telecommunications policy, should the policy objective and enabling guidelines in the 2007 Spectrum Policy Framework for Canada continue to drive ISED's overall approach to releasing spectrum? Are there other policy considerations that ISED should consider?

25. FMCC recommends that ISED reform the policy objectives and enabling guidelines that underpin current spectrum policy, as expressed in the 2007 *Spectrum Policy Framework for Canada*.

26. For example, the Enabling Guidelines state:

(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.⁸

27. Such a "notwithstanding" clause subordinates the public interest, which should be the **primary** goal of Canada's spectrum policy.

28. ISED's current policy objectives seek to maximize the economic and social benefits that Canadians derive from spectrum. However, the outcomes of existing spectrum policies fail to maximize connectivity for communities that remain disenfranchised under spectrum licence deployment guidelines. Both economic and social benefits must include Indigenous Peoples as providers, and not just consumers, of spectrum services and infrastructure.

29. **Universal Access:** ISED defines universal access as: "the principle that all Canadians will have an equal opportunity to participate in the digital world and have the necessary tools to do so, including access, connectivity, literacy and skills" (SLB-003-22, para 15).

⁷ See: http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf, p.9.

⁸ *Spectrum Policy for Canada 2007*, section 4.4.

Deployment provisions must ensure appropriate access to ALL regions and communities in Canada.

30. FMCC emphasizes that according to the CRTC's most recent Communications Market Report, only 39% of Indigenous peoples living on reserves have access to high-speed connectivity that allows for them to participate in the digital world and digital economy.⁹ We note in our submission to CRTC 2022-147 that these percentages are much lower for the Northern Territories, especially in Indigenous communities.
31. Indigenous governments, businesses, ISPs, and other entities must be involved in the decision making around access to electromagnetic spectrum to ensure that the goal of universal access is met according to their desires and interests.
32. Also, ISED should recognize that universally available broadband speeds must be a moving target. The CRTC's Basic Service Objective of speeds of 50 Mbps down / 10 Mbps up may be obsolete by the end of 2026.
33. It is critical to acknowledge that telecommunications services in some of Canada's rural and remote regions are always likely to require government involvement and public subsidies due to geographical distances and sparsely populated areas. It is also critical to recognize that broadband services are essential services for all people living in Canada, including in rural, remote, Northern and Indigenous regions.
34. **Transparency:** ISED references "an open, transparent and strategic process for making spectrum available, including public consultation" (para 15). We endorse transparency, but we have generally found the CRTC to be more transparent in its deliberations than ISED.¹⁰
35. We recommend that ISED adopt a similar consultation process to that employed by the CRTC, including funding to encourage participation by public and consumer interest groups, as well as groups representing parties including Indigenous governments, organizations, and communities.
36. ISED should also be more proactive and transparent in publishing information associated with the spectrum licensing process – including for satellite licensing. This might include details on topics including: licence terms and conditions; records of ISED confirming license terms and conditions have been met, etc.
37. **White Spaces and RLAN:** With respect to TV white space (TVWS), we noted that ISED has seen increased deployments of this licence-exempt technology to support broadband Internet services, especially in rural and remote locations across Canada. Giving providers access to low- or no-cost spectrum options with lower regulatory barriers can

⁹ See: <https://crtc.gc.ca/eng/publications/reports/PolicyMonitoring/ban.htm>

¹⁰ For a summary of these differences, see Shepherd, Tamara, Gregory Taylor, and Catherine Middleton. "A tale of two regulators: Telecom policy participation in Canada." *Journal of Information Policy* 4 (2014): 1-22.

help providers offer improved broadband service in rural and remote areas. However, we see these options as only temporary solutions.

38. Further, our members are not familiar with these technologies or how to use them.

39. **Auctions and Licence Fees:** ISED states the following in the consultation document:

“67. Small and regional providers often cite the lack of access to quality spectrum and the lack of readily available information on available spectrum as impediments to their deployment of wireless broadband services in rural and remote areas. However, ISED has been exploring ways to improve spectrum access by including measures to support competition in its auction processes.”

40. We stress that auctions are not a viable means for Indigenous providers to obtain spectrum for both accessibility and financial reasons. The auction procedure is overly complex and time consuming, and spectrum licenses are financially out of reach for most, if not all, Indigenous ISPs.

41. Rather than auctions, ISED should introduce an Indigenous Priority Window (as introduced by the FCC in the U.S. for some spectrum) to provide a workable mechanism for Indigenous providers to obtain spectrum at no cost.

42. In recognition of the unique status of First Nations as rights-holders, no fees should be levied for the use of the spectrum resource in Indigenous territories or by Indigenous entities. As well, waiving fees for Indigenous providers and coverage of Indigenous land supports the principles of economic reconciliation.

43. In its consultation document ISED also states:

“ISED recently updated its licence fees for microwave point-to-point licences and modernized the licensing and fee framework for satellite services, with the objectives of encouraging the efficient use of spectrum and supporting the deployment of modern satellite technologies such as LEO constellations and advanced high-throughput geostationary (GSO) satellites” (para 61).

44. Since satellites utilize a public resource (electromagnetic spectrum) and access a limited number of delegated orbital slots, they are subject to regulation. While many of these regulations are technical in nature, as ISED notes, governments also use them to meet defined policy objectives. In the past ISED has used satellite licensing to support the provision of satellite services to underserved regions. Indigenous non-profit telecommunications providers serving rural and remote communities have been able to access ‘Public Benefit’ satellite capacity that was set aside as a condition of satellite orbital licenses.

45. From the late 1990s to the mid-2000s, a group of Indigenous organizations (K-Net in Ontario, Broadband Communications North in Manitoba, and the Kativik Regional

Government in Quebec) formed the Northern Indigenous Community Satellite Network (NICSN) to leverage the public benefit obligations associated with the licenses required for Telesat's two Anik F-series satellites.¹¹

46. A similar Public Benefit requirement could be made a condition of the licensing of Low Earth Orbiting (LEO) satellite systems. We note that as of late 2018, it was reported that there were 13 Canadian commercial satellite constellations in development with 384 planned satellites and five satellites already on-orbit.¹² Some of these planned constellations have been supported through several hundred million dollars in public funding.¹³

47. In March 2017, ISED held a Consultation on the Licensing Framework for Non-Geostationary Satellite Orbit (NGSO) Systems and Clarification of Application Procedures for All Satellite Licence Applications.¹⁴ ISED's Consultation document outlined its policy objectives:

"In fulfilling its spectrum management mandate, ISED's policy objective is *to maximize the economic and social benefits* that Canadians derive from the use of the radio frequency spectrum resource. In licensing satellites, ISED is also guided by the objective of ensuring that Canadian satellite users (e.g., broadcasters, government institutions and telecommunications firms) have access to the satellite capacity that they need to carry out their respective functions, and to *ensure that services are available throughout Canada, including the North. These objectives are furthered through the imposition of licensing rules and conditions*, including those related to national coverage and the availability of sufficient capacity for Canadian use." (para 7, *emphasis added*).

48. The Decision released in June 2017 stated that all 13 parties that participated in the consultation were commercial satellite companies.¹⁵ No public interest interveners are represented in the record of this Decision. Given the potentially significant impact that the introduction of LEO and GSO satellites will have on the residents and communities of Canada's rural, remote, Northern and Indigenous regions, we are concerned with the lack of consultation with these groups in the establishment of the licensing conditions for such projects – and the missed opportunities of securing Public Benefit to support Indigenous initiatives.

¹¹ Archived information about this event is available at: <http://smart.knet.ca/satellite>.

¹² See: <https://spaceq.ca/13-canadian-commercial-satellite-constellations-in-development/>

¹³ See: <https://spacenews.com/canada-budgets-a-boost-for-leo-broadband-constellations/> and <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>

¹⁴ See: <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11263.html>

¹⁵ See: <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11302.html>

49. ISED has indicated that the regulatory framework established in 2017 is open to additional refinement.
50. **Recommendation:** ISED and the CRTC should hold additional consultations with respect to licensing conditions for LEO satellite systems, with a specific focus on Public Benefit requirements that could be included as terms of these licenses.

Question 4: How can ISED's Spectrum Management Program Best Support Indigenous Connectivity?

General Comments

51. We recognize that ISED is seeking comments on how it should define a licence applicant as "Indigenous" when developing policies to increase accessibility to spectrum for Indigenous service providers, businesses and communities.¹⁶ We believe it is inappropriate to define Indigenous applicants without wider consultation with other Indigenous organizations and representatives.
52. FMCC agrees with ISED's statement that: "Indigenous input is crucial to using spectrum policy to advance economic reconciliation. Going forward, ISED will consider ways of better engaging Indigenous peoples and developing a deeper understanding of the unique connectivity issues faced by Indigenous communities" (para 76).
53. As noted earlier, other government entities, including the CRTC, are currently examining similar issues related to telecommunications policy consultations. It is problematic to make any decisions on these matters while these and other proceedings are currently underway, and in particular before those decisions have been reached.
54. Please see our submission to CRTC 2022-147 on these matters at:
- <https://applications.crtc.gc.ca/ListeInterventionList/Documents.aspx?ID=304788&en=2022-147&dt=i&lang=e&S=O&PA=t&PT=nc&PST=a>
55. **Recommendation:** ISED work with CRTC and other federal government entities, as well as Indigenous governments, organizations and communities (mandated Indigenous organizations) to review the record of submissions and evidence on these matters and collectively determine a format and process for addressing them moving forward.
56. As stressed earlier, Canadian telecommunications policy must take into consideration UNDRIP and its adoption and implementation by the federal government and other levels of government. ISED also needs to address the issue of ownership and who has the authority to sell license and renew permits for spectrum covering or used on Indigenous

¹⁶ For example, ISED asked question in SPB-003-22.

traditional territories. Any decisions on these matters must be ratified by Indigenous mandated organizations.

57. **Recommendation:** In recognition of UNDRIP and the implementation of the UNDRIP Act in Canada, ISED should acknowledge Indigenous rights to govern and manage the spectrum on and over their lands, and meet with Indigenous mandated organizations regarding these issues.

How can ISED support Indigenous Connectivity?

58. As noted in the Spectrum Outlook consultation document, ISED recognizes that other countries recognize access to and control of spectrum by Indigenous populations. Under the principles of the Treaty of Waitangi, the Māori have control over spectrum in the 3.5 GHz band; the Mexican regulator IFETEL set aside 2x5 MHz of spectrum in the 800MHz band for communities served with populations less than 2,500 people (or a designated Indigenous region); and in the U.S., the FCC offered a Rural Tribal Priority Window to eligible Indigenous entities to acquire 2.5 GHz spectrum covering their Tribal lands.
59. With respect to spectrum allocation, we reiterate the role of Indigenous rights-holders in making decisions around governing and managing the spectrum on and over their lands.
60. We disagree with the First Come, First Served (FCFS) spectrum licensing approach proposed by ISED for NCL licensing (in SPB-003-22, para 33) and used for other licences which are not auctioned. Incumbent providers might apply for spectrum before small and Indigenous providers are aware of the opportunity, or are able to prepare and submit an application.
61. **Recommendation:** ISED should immediately fully release unused spectrum on and over Indigenous traditional territories for the use by and benefit of Indigenous peoples at no cost.
62. **Recommendation:** ISED should waive fees for Indigenous entities and providers, including those operating in Indigenous territories.
63. **Recommendation:** Indigenous providers and others should have the right to divisibility, transfer and/or subordination of licences. They should also have the right to receive access to spectrum from other providers that have these rights.
64. **Deployment:** As we have noted in several previous submissions to the CRTC and to ISED in SPB 003-22, there may be many setbacks in establishing networks in remote communities. Reasons include delays in obtaining funding, limited periods for shipping equipment due to weather and lack of roads, delays in getting access to existing facilities

from other providers, getting access to backhaul from for-profit providers, and arranging access to rights-of-way.¹⁷

65. Therefore, longer terms should be considered for rural, remote, and Indigenous areas. In particular, longer licence terms should be made available to Indigenous organizations and/or projects that involve Indigenous partners. This can provide an incentive for mobile service providers to partner with and/or support Indigenous organizations in the spirit of economic reconciliation.

ISED's Consultation Process

66. We commend ISED in its recognition of the limitations of ISED's existing consultation processes and its efforts to reform them to be more appropriate and inclusive of Indigenous perspectives.
67. However, as stressed earlier, FMCC would like to address the tendency in consultations to approach Indigenous Peoples as one stakeholder among many – rather than as distinct rights holders exercising a government-to-government relationship. The adoption and implementation of UNDRIP requires every level of the federal government to align Canadian laws with the standards set forth in the declaration.
68. Many Indigenous entities, whether First Nations governments or regional technology organizations such as the FMCC member organizations, currently lack the internal technical and legal capacity required to address these important policy issues. Highly technical policy consultations, including on spectrum policy, are typically dominated by well-funded corporate entities with extensive internal resources to advance their perspectives.¹⁸
69. In assessing potential reforms to policy consultations, we urge ISED to consider examples of mandated Indigenous organizations in other sectors, such as health care and education, that include the depth of expertise required to participate substantially in policy consultations. For example, the First Nations Education Council in Quebec is governed by First Nations political leadership, and includes technical experts on various aspects of educational policy as it pertains to First Nations in Quebec.
70. Another example is the First Nations Technology Council (FNTC) in B.C. As the mandated sector council for technology and innovation working in service of the 204 First Nations in B.C., the Technology Council has a formal working relationship with the BC Assembly of First Nations, the Union of BC Indian Chiefs, and the First Nations through protocol entered into in 2012, as directed by the Chiefs. The Technology Council, as directed by the Chiefs in BC (UBCIC Resolution No. 2022-17, BCAFN Resolution No.

¹⁷ For example, see the record of FMCC's submissions to: *CRTC 2019-406: Call for comments regarding potential barriers to the deployment of broadband-capable networks in underserved areas in Canada*.

¹⁸ McMahon, R. & Akcayir, M. (2022). Voices from Northern Canada: Integrating stakeholder expectations in telecommunications policy for rural, remote and Northern regions. *Telecommunications Policy*.

10/2022 and FNS Resolution No. 1021.07), is in the process of developing an Indigenous Digital Equity Strategy.

71. **Recommendation:** ISED should conduct an annual meaningful public consultation with Indigenous leaders and mandated organizations to discuss whether Indigenous needs for spectrum are being met. The Canadian government should work with the mandated Indigenous organizations in each region to find mutually beneficial paths forward.
72. Indigenous organizations and providers need training in how to acquire licences and in more general issues of spectrum allocation. One approach that could be very helpful would be outreach by ISED staff, for example in their regional offices, to provide or organize such training.

Annex C: Demand for satellite services

73. In its consultation document, ISED points to Pikangikum as a successful example of the use of LEOs to connect households in a remote Northern community. However, we note that the situation faced by that community is more complex, and illustrates some unintended consequences from the introduction of LEO systems through subsidized access.
74. In our response to CRTC 2022-147, we included information regarding the potential impacts of LEO systems on consumers, communities, and service providers – including FMCC member organizations. LEOs may complement existing infrastructure, or act as a temporary solution until terrestrial networks are upgraded. In some very remote communities, LEOs may be a more cost-effective solution than other services provided through GEO satellites.
75. However, we also note that subsidized provision of LEO equipment and services may be disruptive for existing operators including Indigenous ISPs. For example, K-Net’s partner communities, including Pikangikum First Nation, currently operate through a community-aggregator model that involves local distribution of connectivity via a point of presence. In these contexts, the introduction of a limited-term (one year) subsidized direct-to-home LEO service (Starlink) had a significant impact on consumers, communities and K-Net as a service provider.
76. K-Net had been waiting for more than a year for a contribution agreement concerning an approved funding proposal to the federal government to upgrade the regional fibre optic network connecting these communities. This project will increase the capacity of existing regional fibre infrastructure, which K-Net expects to be completed in 2023.
77. In the meantime, to support communities and households during COVID-19, the Nishnawbe Aski Nation (NAN) received three years of emergency funding through the Government of Canada (COVID-19 Resilience Stream of the Investing in Canada Infrastructure Program) and the Ontario Ministry of Education to install direct-to-home Starlink systems. While this was an important measure during COVID-19, it also had impacts on the existing market.

78. Prior to this intervention, each involved First Nation owned its own local ISP, and had 95% of the market for Internet. The introduction of subsidized LEO systems in these communities created a situation where some households have access to subsidized LEO systems, and others do not. It is also splitting the consumer market and affecting the business model for K-Net-supported local ISPs.
79. At time of writing (Nov 2022), the limited-term government subsidies for Starlink services are starting to come to an end for some consumers. A number of households, including single parent families, that currently rely on Starlink services for their children's schooling and other essential services will be unable to pay monthly fees that are too high in proportion to household income. There is no current plan to further subsidize these households.
80. Local leadership, including in Pikangikum, were not initially aware of the unintended effects on viability of the local ISP by the LEO facilities deployed through the emergency funding. We raise this example to illustrate the unintended effects that can arise from well-intended emergency solutions such as temporary free LEO connectivity.

Conclusion:

81. We appreciate the opportunity to participate in this consultation.
82. We reserve the right to respond to other questions from ISED and to comments by other intervenors in later stages of this consultation.

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