Telecom Notice of Consultation CRTC 2017-112

Development of the Commission's Broadband Funding Regime

Final Comments of the First Mile Connectivity Consortium

December 18, 2017

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General Comments, Summary and Introduction

1. The First Mile Connectivity Consortium (FMCC) is an incorporated independent not-for-profit national association of Indigenous broadband service providers. Our members are First Nations Internet service providers – what we call "community/regional intermediary organizations." Our work focuses on innovative solutions to digital infrastructure and services with and in rural and remote regions and communities across Canada.

2. The FMCC is seeking means to ensure access to reliable, affordable and scalable broadband in rural, remote, northern and Indigenous communities, in ways that involve residents of these communities in the provision of digital services. This approach requires "first mile" solutions in the design, development and operations of telecommunication infrastructure and services – and the policy and regulatory frameworks that support their deployment. Our focus is on regulations and policies that establish an enabling environment that invests in connections and organizations based in affected communities and regions.

3. Our position is contrasted against "last mile" initiatives that focus on upgrades to urban-based infrastructures in the belief that they will eventually serve the remote and rural regions; an approach that has not worked for rural, remote, Northern and Indigenous communities. Despite decades of work and billions of dollars in public funding to deploy infrastructure and services to these regions by corporate telecommunications service providers, the problem remains the same: persistent digital divides, expensive and inadequate services, and insufficient data regarding access, availability, adoption and affordability.

4. One solution to this problem lies with the residents of these regions, who have been actively engaged in building and operating their own innovative infrastructure and services despite challenging conditions. Our FMCC member organizations do this work: they have built up the technical capacity to provide and support the delivery of broadband-enabled public services such as online education and telehealth, as well as entertainment services for household consumers. This whole community approach frames infrastructure, bandwidth, and associated capacities as resources that can be aggregated into sustainable, appropriate, community-managed deployment and adoption methods. This provides affordable, adequate, accessible telecommunications infrastructure and services to rural, remote, and Northern Indigenous communities across Canada – in ways that offer a range of long-term economic and community development benefits for the residents of these communities.

5. We believe that this inclusive approach can be supported through the newly established broadband fund. In this filing we provide our Final Comments regarding the development of the Commission's broadband fund regime. These comments refer to our prior interventions in these proceedings, where we supply additional detail on several issues raised here.

Supporting Reconciliation and the Public Good by Enabling Development at the First Mile

6. We believe that the new Fund can contribute to a policy and regulatory framework that will enable community and economic development at the First Mile: that is, supporting digital innovations undertaken by residents of rural, remote, Northern and Indigenous communities. The Commission's Fund regime should reward and encourage those proposals that demonstrate public/community benefits in the regions and communities being served (for more details on these points, see our previous submissions to these proceedings). These public/community benefits are demonstrated by the following criteria:

- Whole Community Use
- Sustainable Community Benefits
- Local Consultation, Engagement and Support, Hiring and Training
- Local/Regional Management and Capacity
- Local/Regional Organizational Structure and Governance
- Adequate Quality of Service

- Affordability
- Network Scalability
- Sustainability: The Need for Operational Subsidies

7. We stress that community-based organizations must be supported in accessing the new funding mechanism as providers and not just consumers of telecommunications infrastructure and services. As argued in interventions by FMCC and many other participants in these and other proceedings, community-based organizations are already engaged in building, operating and maintaining infrastructure and services, which contribute to long-term economic and community development benefits for residents of impacted regions.

8. We note statements made by some parties to these proceedings, such as TELUS, that acknowledge the development of telecommunications infrastructures and services in these regions as a means to support reconciliation with Indigenous parties. We stress that the implications of such statements, and the use of words like "partnership", must be clearly defined, because this rationale may be used to support different development paths: as a means for companies to enable community-driven efforts to build and operate infrastructures that support self-determined economic and community development initiatives; or primarily as a means for companies to use the new fund to secure access to new customers and revenues.

9. We note that the primary fiduciary obligations of major TSPs are to shareholders typically located in southern and urban centres, not to residents of rural, remote, Northern and Indigenous communities. TELUS itself states in its submission to the Local Subsidy Proceeding (CRTC 2017-92): "Because providing service is by definition unprofitable and unsustainable at a regulated price set below cost, no telephone company would serve these areas absent some other compensation" (para 2).[1]

10. We therefore have little trust in the long-term commitment of TELUS and major TSPs to these communities. Other interveners representing Indigenous communities express similar concerns. For example, the All Nations Trust asks: "How do we ensure this fund does not become an 'in and out' vehicle, in which the telcos fund the program at the front end and then draw down those same funds at the back end via complex and sophisticated proposals that overstate the nature of their 'partnerships' with First Nations?"

11. We believe that substantive reconciliation is supported through enabling the self-determined development goals of Indigenous communities, including through their ownership and control of telecommunications infrastructure and services. This can happen through reciprocal, mutually-beneficial partnerships between TSPs and Indigenous groups, for example through TSPs leasing Indigenous-owned infrastructure to deliver connectivity services, or cooperating – rather than competing – with the local and regional providers operating in affected areas that can offer long-term, meaningful, well-paid employment. Such partnerships can support long-term economic and community development in these regions.

12. In our response to the Commission's questions, we referred several times to the Navajo Nation Telecommunication Regulatory Commission's (NNTRC) *Application for Certificate of Convenience and Necessity*. That material explains the process and rules associated with the provision of telecommunications infrastructure and services in Navajo territories[2] and provides an example of a clear and workable solution for rewarding those entities that provide demonstrable public/community benefits to affected regions. We believe it can serve as one model for the Commission in its deliberations.

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[1] Telecom Notice of Consultation CRTC 2017-92: Phase-Out of the Local Service Subsidy Regime. Intervention of TELUS Communications Company, June 15, 2017.

[2] See: http://nntrc.org/uploads/FileLinks/f25715e8b19a450c85cdea027b8b9679/2014_12_10_NNTRC_11_001_Second_Report_and_Order__CCN_1_1__1___1_.pdf

13. We stress the need for a framework guiding the funding mechanism that requires public and community benefits, including through local and regional ownership and control of telecommunications infrastructures and services. Applicants should provide evidence of the long-term public and community benefits of their projects to the communities and regions being serviced – and be monitored to ensure that these obligations are fulfilled.

Community Engagement: Improving Accountability, Efficiency and Public/Community Benefits

14. We agree with several intervenors, including IRC, BC Broadband Association, the Government of the NWT, and PIAC/NPF, that the broadband fund regime – including both administrators and applicants – must actively solicit involvement of communities included in funding proposals. Applicants to the Fund must demonstrate they have adequately engaged with communities in both initial planning and application stages, and also fulfilled public/community benefits. We agree with SSi Micro, which suggested that applicants should be required to provide evidence demonstrating that they have the engagement and support of the communities they propose to serve.

15. As well, the Fund administrator must involve representatives from affected regions and communities in its decision-making process. It should also engage expert advisors with knowledge and experience of affected communities and regions. We discuss this point in more detail below.

16. In considering specific types of consultation and engagement with affected communities, the Fund should endeavour to include <u>all</u> of the following:

- Consultation prior to an application being filed to serve a local community (e.g. an eligibility requirement of engagement or support);
- Local community ownership or participation to serve a community;
- Support to assist local communities to file applications for funding;
- 'Consultation' during the application (e.g. provide notice that an application has been filed and/or an opportunity to comment on an application filed related to a community);
- Explicit terms that allow funds to be used for accommodations (e.g. revenue sharing, training, local benefits, etc.); and
- Local community approval of project plans and implementation.

17. The following two important points should also be included in any discussion of "meaningful consultation" in this context. "Meaningful consultation" must <u>be inclusive of the whole community</u> and <u>lead to new economic and social opportunities and innovation.</u> We elaborate on these two points in our other submissions to these proceedings.

18. We strongly disagree with suggestions that community involvement in the strategic planning, deployment, and ongoing management, operations and maintenance of telecommunications infrastructure and services is not administratively or economically efficient.

19. We disagree with SaskTel, which suggests that while local community involvement should be encouraged, it should not be deemed as a pre-requisite to receive funding from the broadband funding regime, because it is difficult for some communities to comply.

20. In fact, the existing corporate approach used to deploy and maintain telecommunications infrastructure and services in remote and Northern regions is often inefficient, expensive, and ineffective. Communities should not be considered uncooperative and 'inefficient' if they undertake a critical review of projects proposed by companies, rather than accepting such proposals immediately at face value.

21. This point has been noted by several FMCC members, who have faced project delays due to processes managed by TSPs, such as negotiations regarding wholesale bandwidth or access to facilities. This is one reason why we propose flexibility in the time limits available for small recipients to spend project funds – to ensure these third-party conditions are put in place in time to enable the completion of funded projects.

22. Thus, we agree with ECN's point that delays are not necessarily a consequence of community involvement. The expectation that developing an effective community approach will impede the speed of an application is incorrect: with a timely and reliable funding schedule, communities can move at the speed that is required. Indeed, the speed at which other agencies and companies perform necessary functions are often a more substantial cause for delays. Their traditional 'last mile' approach simply adds additional criteria to their work. With a 'first mile' approach, their planning and proposal design would place community engagement as a required first step in all efforts.

23. Some parties suggest that requirements for community consultation and demonstrated public/community benefits may lengthen project timelines, thereby impacting 'efficiency'. In response, we ask: efficiency for whom? The Commission should keep in mind the key constituents impacted by the infrastructure and services that will be established through the Fund, i.e. those located at the First Mile of the proposed development. Our position is that considerations of 'efficiency' should reflect and prioritize the interest and needs of the residents, consumers and taxpayers who live and work in the affected regions first.

24. We also note that involving community members in strategic planning activities can support more effective and accountable stewardship of funds used to deploy infrastructure. A lack of community-level engagement in past projects, including several funded by ISED's CTI program, has resulted in the duplication of efforts and of projects, resulting in inefficiencies. Communities that are engaged by applicants and the administrator can provide valuable information about existing projects that applicants may not know about, and/or assist applicants with their strategic planning efforts. Consultation is not a barrier to efficiency – in fact it increases efficiency and stewardship of public funds by reducing duplication and supporting strategic planning. It provides additional checks and balances to ensure that funding is coordinated across different entities, including government departments. It ensures communities are obtaining the services they require for their long-term development.

25. In terms of guidelines and information requirements regarding consultation, applicants should follow a transparent list, made publicly available and published on the Fund website. This list should be subject to periodic review and revision, to ensure continuous improvement and process streamlining, which supports administrative efficiency. We encourage the Commission to review the criteria established by the NNTRC, which is described in detail in our responses to the Commission's RFI.

26. In summary, we strongly disagree with parties such as Bell Canada, which stated that the Commission should not strive to engage local communities and governments in the funding allocation process, whether in making determinations on applicant eligibility, or assessing bids. Failure to do so will reduce the fairness of the process, impact the efficiency and effectiveness of projects, and undermine the transparency and accountability of projects. It is important that the Commission does not conflate the private interests of companies with the public interests of Canadians.

Consultation with Indigenous Communities: Supporting Substantive Reconciliation

27. The Commission should endeavour to support better engagement of Indigenous communities in the broadband fund regime, and in its work more generally. We stress that appropriate engagement and free, prior and informed consent with Indigenous communities must be provided, and that the Commission consider using some of the suggestions and processes proposed in these and related proceedings to explore opportunities to establish an internal Indigenous Engagement Office.

28. With regards to engagement with Indigenous groups, along with the general activities described above, we note the additional requirement for formal consultation. We stress the need for the Commission to establish a clear and binding definition of the term "consultation" in this context. The Government of Canada uses the following definition, as outlined in "Guiding Principle No. 4" in *Aboriginal Consultation and Accommodation - Updated Guidelines for Federal Officials to Fulfill the Duty to Consult* (March 2011):

> "Consultation and accommodation will be carried out in a manner that seeks to balance Aboriginal interests with other societal interests, relationships and positive outcomes for all partners. A meaningful consultation process is one which is:
>
> - carried out in a timely, efficient and responsive manner;
> - transparent and predictable;
> - accessible, reasonable, flexible and fair;
> - founded in the principles of good faith, respect and reciprocal responsibility;
> - respectful of the uniqueness of First Nation, Métis and Inuit communities; and,
> - includes accommodation (e.g. changing of timelines, project parameters), where appropriate."[4]

29. We note that such engagement should include recognition of the need for appropriate consultation with Indigenous communities by various entities associated with the Broadband funding regime:

- CRTC Broadband Fund Administrator, such as through Indigenous representation on the Board of Directors, and through expert advisors who can work with the Board.
- Broadband Fund Applicants, such as through requirements for community engagement and demonstration of public/community benefits of projects.
- CRTC Indigenous Engagement Office (future). This structure might be modeled on the FCC's Office of Native Affairs and Policy (ONAP). [3]

30. We recognize that at present there is no Indigenous Engagement Office at the CRTC. More immediately, the Commission should ensure appropriate consultation with Indigenous groups through the Broadband Fund Administrator, as well as through the requirements placed on applicants to that Fund. The expertise and processes developed through the development and administration of these elements of the Broadband Fund might identify and develop the capacity and expertise that will help establish a more permanent Indigenous Engagement Office at the Commission.

31. The Navajo Nation Telecommunications Regulatory Commission (NNTRC) provides a useful example of how Indigenous communities may be appropriately engaged by telecommunications regulators and providers that operate on Indigenous lands. We discuss this approach in detail in our responses to the Commission's questions (also see para 12 above).

32. Another mechanism to support the participation of Indigenous organizations was proposed by MKO during the BSO hearings. MKO stated that a necessary component of any broadband development funding mechanism "is supporting opportunities for development and growth of First Nations and Aboriginal businesses. This can be done through the implementation of a Procurement Strategy for Aboriginal Businesses [PSAB] or a PSAB-like policy."[4] The Commission should consider including this mechanism in procurement criteria for the Fund as a means to further engage Indigenous organizations and businesses.

Governance, Operating, and Accountability Frameworks to Manage the Broadband Fund

[3] See: https://www.fcc.gov/general/native-nations

[4] Procurement Strategy for Aboriginal Business. See http://www.aadncaandc.gc.ca/eng/1100100032802/1100100032803

Governance Framework

33. Governance of the Fund in a manner that supports substantive engagement from rural, remote, Northern and Indigenous regions can be achieved through three related groups associated with the Fund administrator plus the communities themselves. The Commission can draw on regional expertise housed in several entities associated with the CRTC Fund:

- Board of Directors governing the CRTC Fund, which must include regional representatives.
- Proposal Review Committee established by the Board, which is charged with decision-making regarding the applications process.
- Advisors to the Proposal Review Committee, who are engaged for their expertise in issues related to broadband development in/with rural/remote/Northern/Indigenous communities.
- Communities, which will be engaged with by applicants as a condition of funding, and by the administrator through regional representatives.

34. We strongly advocate for regional and Indigenous representation in the governance of the fund, including membership on any Board, sub-committee, advisory group or other organizational structure. Our position is supported through: peer-reviewed research on the need for flexible and customized policy to support broadband deployment and adoption (rather than a 'one-size-fits-all' model); widespread concerns raised by rural, remote, Northern and Indigenous groups with respect to current governance arrangements regarding the provision of Commission-managed funds to high-cost service areas; and evidence of long-term successes of providers based in those regions.

35. We therefore agree with Inuvialuit Regional Corporation (IRC), which stated that any administrative body that takes part in the broadband fund administrative and decision making process should include Indigenous representatives, as well as representatives from Northern Canada. These representatives should be substantively engaged in both the procedural and substantive administrative and decision making processes.

36. Any governance structure established to manage the Fund must require a diversity of representatives from both the public and private telecommunications industry, including small providers and community and regional representatives. The Board must include membership from underserved regions, including Northern and Indigenous communities. Knowledge of and experience in the regions and communities, especially with Indigenous communities, should be important criteria for Board membership.

37. In particular, the Board must include representation from Indigenous service providers. For years, these organizations have developed and delivered broadband infrastructure services in rural, remote, Northern and Indigenous regions; as residents, their staff know these regions best. Furthermore, these organizations have advocated for the need to include Indigenous peoples in decision-making about broadband development taking place in their territories and communities. Inclusion in the Board governing this Fund is one important step in institutionalizing this activity at the CRTC.

38. As noted in our prior submissions to these proceedings, we understand that Board members may belong to organizations who may wish to be recipients of project funds. In such cases, these Board members would recuse themselves from all decisions regarding applications made by their organizations, including those made by the Proposal Review Committee. In such cases, Board representation from affected regions in the Committee can be demonstrated through proxy (voting) members endorsed by letters of support and/or other evidence of a regional mandate. We also encourage the Commission to engage advisors with direct knowledge of these issues, and communities which are impacted by broadband development plans. A conflict of interest policy would, of course, apply.

39. Both the *ex officio* advisors and the voting adjudicators of the Proposal Review Committee should be chosen from a publicly-posted roster of qualified professionals and rotated for each round of funding

decisions. This approach is modelled on the procedure used by the Social Sciences and Humanities Research Council (SSHRC) to assess proposals for publicly-funded research projects.[5]

40. With regards to the engagement of regional advisors, we refer the Commission to past government activities in establishing such groups to help identify individuals and organizations with existing expertise and experience in rural, remote, Northern and Indigenous broadband development. For example, the Northern Communications and Information Systems Working Group consisted of government staff, private sector service providers, and researchers.[6] Another initiative that also includes the northern regions of the provinces is the Conference Board of Canada's report *Mapping the Long-Term Options for Canada's North: Telecommunications and Broadband Connectivity*.[7] In our prior comments to these proceedings, we outlined several principles to guide the process used by the CRTC to select representatives to the Board of Directors for the Fund. We believe the process used to select the Board should:

- be open, transparent and public;
- ensure balanced representation of cultural populations and geographic regions across the North (in particular, including people from Indigenous and remote regions);
- be based on nomination, including self-nomination;
- include endorsements from appropriate regional or community digital technology groups with demonstrated engagement with infrastructure and/or services;
- include enough positions to ensure that directors are representative of the diverse communities and entities involved; and
- include representatives from private, public and civil society organizations with ties to rural, remote and northern regions and/or communities.

41. The Commission has established internal precedent in the formation of governance structures involving representatives from a diversity of communities and organizations. One example is the CRTC-associated Community Radio Fund of Canada (CRFC).[8] Another is the CRTC-associated Broadcasting Participation Fund (BPF).[9] At least two thirds of the BPF's directors represent public interest and consumer groups with non- commercial mandates.

42. Regional representatives should play a substantive, decision-making role in the administration of the fund as members of the Board. In our Reply Comments to these proceedings[10] we raised concerns that the creation of an advisory group alone – that is, without corresponding representation on Board and associated Proposal Review Committee – would provide rural/remote/Northern/Indigenous representatives with little or no official power, leaving decision-making to the formal administrative board.

43. We suggest that representatives be given a three-year mandate with the opportunity for extension of their terms for the duration of the five-year funding cycle (or longer, if extended). Those who did not wish to or were not able to continue after three years would be replaced by representatives from the same constituencies using the procedures described above.

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[5] For information on SSHRC's review process, see: http://www.sshrc-crsh.gc.ca/funding-financement/merit_review-evaluation_du_merite/index-eng.aspx

[6] A list of members of the Project Steering Committee of the Northern Communications and Information Systems Working Group is available here: http://www.aciareport.ca/acknowledgements.html

[7] See 'Acknowledgements' list on p.4 of this report: http://digitalarctic.com/files/images/sessions/making%20it%20possible/adam%20fiser/14-061_connectivity_cfn_rpt.pdf

[8] See: http://www.crfc-fcrc.ca/en/about-the-fund

[9] See: http://www.bpf-fpr.ca/en/home.html

[10] Telecom Notice of Consultation 2017-112: Reply Comments of the First Mile Connectivity Consortium, August 25, 2017.

Role of Innovation, Science and Economic Development (ISED) and Connect to Innovate (CTI)

44. We agree with several parties that ISED should be involved in providing support for the Commission's new broadband Fund. However, we do not recommend that ISED be tasked to oversee the competitive bidding process for the new broadband fund, and/or be engaged directly in project selection and oversight, as some interveners have suggested.

45. We have several concerns with ISED playing a major role in the administration of the fund. Compared to the CRTC, ISED allows for fewer public consultative opportunities. There are few structured consultations, and determinations are not subject to the same method of open and public discourse.[11] As we noted in our reply comments (as did Open Media), there are a significant number of lobbying interactions undertaken between major TSPs and ISED, as documented in the media. While we recognize that such meetings are part of doing business, lobbying should play no role in the allocation of the CRTC's broadband fund.

46. For these reasons, our position is that ISED's involvement should be limited to advisory functions. We agree with PIAC/NPF that the Commission retain oversight of the fund, as well as over TSPs which contribute and draw from the fund. If ISED is involved, its role should be restricted to providing specific expertise to support the review and monitoring of applications by a third-party entity, and to support applicants. We agree with CNOC that ISED staff should have an important role in assisting the third-party administrator when it comes to evaluating applications for funding, assisting certain categories of applicants with the application process as well as managing ongoing aspects of the broadband fund, such as progress monitoring of funded projects. We also agree with KRG, which suggests ISED's role should be in an advisory capacity and technical capacity, and to assist the Commission's broadband regime in evaluating proposals and providing insight into the regions that the funding regime is considering.

47. ISED staff can help coordinate funding applications across government departments (including federal, provincial and territorial governments) and provide advice to decision-makers. ISED's regional staff can provide important support to applicants located in rural, remote, Northern and Indigenous regions. Regional staff have expertise and understanding of the unique needs of organizations based in these regions, and so can play an important part in supporting their efforts. FMCC member organizations have noted positive experiences in their work with ISED program staff (and staff from other federal departments and agencies, such as INAC).

48. We believe that the CRTC itself should build internal capacity concerning Indigenous and Northern regions, and note that the Federal Communications Commission (FCC) has established an Office of Native Affairs and Policy (ONAP), which could be a model for the CRTC.

Application assessment process

49. We generally endorse the three-stage assessment process outlined by ISED in its CTI *Application Guide*, which outlined 1) eligibility screening; 2) essential criteria; and 3) comparative criteria (pp. 13-16).[12] However, we place higher priority on the requirements for public/community benefits of funded projects. We also stress the need for substantive community engagement in this process. We believe that these additional criteria should be included in the first stage of eligibility screening: it is essential for funded projects to demonstrate how they engage with, and provide public/community benefit to, users located in the affected regions and communities. We provide more detail on definitions of 'public/community benefit' in this context in our response to the Commission's questions.

[11] Shepherd, T., Taylor, G., and Middleton, C. (2014). "A Tale of Two Regulators: Telecom Policy Participation in Canada." *Journal of Information Policy* 4:1–22. Available at: http://dx.doi.org/10.5325/jinfopoli.4.2014.0001

[12] See: https://www.canada.ca/content/dam/ised-isde/documents/pdf/programs/computer-internet-access/connect-to-innovate/CTI_Application_Guide.pdf

50. We also propose that the Commission add another phase that precedes the three-stage assessment process. A Proposal and Strategic Development Stage that involves assistance from and consultation with various government agencies and data sources should be available to support the development of project proposals by small-scale, low-resourced organizations that are based in affected rural, remote, Northern and Indigenous regions.

Phase 1	**Phase 2**		
Proposal and Strategic Development (For low-resourced organizations based in affected regions)	*Eligibility Screening* (Includes evidence of community engagement and public/community benefit)	*Essential Criteria*	*Comparative Criteria*

51. As discussed above, the assessment process described above must be managed by a third-party administrator, governed by a Board of Directors appointed by the CRTC and including representation from affected communities and regions.

52. Evaluation of proposals should be coordinated by a committee chosen by this Board, known as the Proposal Review Committee. This Proposal Review Committee should consist of members of the Board, as well as *ex officio* advisors who can provide advice and recommendations to that Committee. Proposal Review Committee members with direct financial ties to entities applying to the Fund would recuse themselves from decision making associated with their project applications. Guidelines on conflict of interest would be made publicly available and modeled on those in force in other bodies that disburse federal funds.

53. The Proposal Review Committee should engage advisors with expertise in the geographic regions, communities, technologies, business models, and/or institutional structures present in affected areas. These advisors can participate in the review of proposals during Eligibility Screening and Comparative Criteria phases of the process. They can also address specific questions posed by the Committee as required, and help to assess the public/community benefit impacts of proposals, and levels of community engagement.

Monitoring Funded Applications

54. The Administrator should monitor and review the implementation of projects according to agreed-upon targets and deadlines on an ongoing and transparent basis. It should require regular, publicly available and verifiable progress reports. These reports should include information about implementation deadlines and any budget overruns, with expenditures subject to audit. They should also clearly note progress towards required public/community benefits. These reports should be published on the CRTC website.

55. The administrator should be empowered to request the CRTC to fine or sanction those organizations that do not meet required targets or do not otherwise fulfill their obligations, as determined by the administrator (and engaged advisors).

Eligibility Criteria and Prioritization of Funding

56. We recognize that the fund as currently established ($750 million over five years) is clearly not sufficient to extend broadband services to all unserved and underserved locations in rural and remote areas. We agree with several interveners, including BCBA and SSi Micro that state that Remote, Northern, and Indigenous communities should be prioritized. We also agree with IRC, which notes that the Commission ought to consider the unique circumstances of these regions in light of the purpose of broadband funding, enhancing connectivity, and creating equitable access to broadband and in meeting the universal service objective established by the Commission.

57. We also agree with SSi Micro that the Commission should assign the highest priority to improving broadband service to underserved remote communities, where "remoteness" is defined not only by the size and level of broadband access service in the community but also by the absence of the physical means of connecting by road to the rest of Canada.

58. We note and explain the following points with regards to funding prioritization in more detail in our initial intervention, reply comments, and responses to the Commission's questions:

- Funding applications should be reviewed and dispersed annually to support sustainable benefits and strategic development;
- Avoid setting arbitrary designations for 'priority' regions;
- Consider 'efficiency' as it relates to key constituents: residents of affected regions;
- Eligibility criteria must not focus on metrics and plans to serve the greatest number of households in a given geographic area; and
- Apply 'whole community' criteria for eligibility criteria in rural/remote/ northern Indigenous regions.

59. Although a helpful resource, we note several problems with CTI's selection criteria. The CTI program proved to be a challenging and technical proposal development process for under-resourced community-based organizations. In our submissions, we highlighted the following challenges with the existing CTI program:

- CTI application process was challenging for low-resourced applicants;
- ISED did not provide adequate program support staff to assist applicants;
- ISED CTI timelines are much too short for low-resourced applicants;
- ISED's one-year limit to spend funds is much too short;
- Connectivity information used by ISED (geographic hexagons) was problematic: A new approach to collecting, analyzing and vetting data is required;
- CTI relied on metrics to determine retail pricing levels that are not realistic for non-profit providers in remote communities, and does not adequately recognize the potential to aggregate users in small-population, remote/northern/Indigenous communities;
- CTI supports projects that provide legacy infrastructure, which restricts innovation, allows for inefficient overbuilds, and will not address BSO requirements in the immediate term – not to mention rapidly-approaching near-future needs;
- Using "current average subscriber usage" of an antiquated and poor delivery network service as a means to justify upgrading and expanding the same inadequate legacy infrastructure, and using public resources to do so, is wrong;
- CTI has allowed for overbuilds of existing infrastructure, for example in Nunavut; and
- The lack of a precise definition of open access (discussed below; see paras 77-80).

60. Rather than focusing on residential services alone, the selection criteria should emphasize the requirements of anchor institutions such as schools, clinics, and government offices as well as the needs of local businesses and NGOs.

61. We note that any unit specifications adopted are not meaningful unless they contain sufficient, up-to-date data. We note the lack of data currently available on facilities, connectivity, and actual bandwidth and QoS in many remote, Northern and Indigenous regions. Further, we question how often the hexagon data used by ISED are updated and verified.

62. To address this problem, we propose that the Commission work directly with organizations and individuals located within affected areas to verify available data and to help collect missing data. This is another benefit of community consultation requirements, since those consultations allow applicants to gain a better understanding of local and regional connectivity data. We support the efforts of the Commission and other parties (such as CIRA and M-Lab) in developing methods to collect more robust connectivity data. We also point to the innovative approach developed by the Navajo Nation (NNTRC), which combines data collection with the review and issuing of licensing

applications. We suggest that a similar model, which including data collection in the application process, could also contribute to the Commission's efforts to collect more robust connectivity data from remote and Northern regions.

63. In general, we recommend prioritizing fixed broadband projects over mobile/cellular projects and new builds over upgrades. Fixed broadband projects are more likely to provide more bandwidth to users: this common pool bandwidth can be purchased on a wholesale basis and shared throughout various users in a community via local Wi-Fi or other locally managed networks. Transport projects can provide open access wholesale bandwidth that can provide backhaul for both fixed and mobile broadband services. (That is, cellular towers typically connect to a fixed fibre link at some point.)

64. The fund should prioritize projects that would be unlikely to attract funding from other sources. New builds should therefore be prioritized over upgrades, which are less costly. However, the Fund should not fund technology that is not yet available. Applications must be based on technologies that are already tested and proven at the time of application, not on technologies that are being promised in the future.

65. We agree with ECN's position that the fund be used to advance the broadband capacity for unserved and underserved regions so that communities can benefit and possibly participate in the management and operation of telecommunications, and that the expectations of the program should include:

- affordable rates;
- adequate Quality of Service (QoS) standards;
- the obligation to serve all residents in the community;
- a network that will operate in good working order for not less than 20 years; and
- funds would not be used for overbuilding.

Regional Prioritization of Funding, Overbuilds, and Open Access

66. It is obvious that communities in the northern territories would be disadvantaged by a funding formula that determines proportional distribution of funding based on the total number of telecommunications subscribers in each jurisdiction. Although the FMCC has members located in the northern regions of the most populous provinces, we do not believe that total population or total subscribers is a relevant or appropriate metric for distribution of broadband funds for rural and remote regions.

67. We therefore disagree with interveners that suggest the Commission set arbitrary amounts for various provinces, territories, etc. or according to proportion of national subscribers or proportion of underserved households. The arbitrary designation of a fixed percentage of the fund for the remote and rural regions could result in insufficient funds to serve communities that should be prioritized. Therefore, we do not endorse arbitrary designations of fixed percentages or funding amounts for northern and Indigenous communities – unless they receive all of the available funds. The CRTC's decision stated that broadband was to be available to ALL Canadians. While we recognize that there are unserved communities in the northern regions of the most populous provinces their support should not exclude funding for remote communities in other regions.

68. We agree with SSi Micro, which opposes any plan that would allocate funding based on current population distribution. SSi states: "Such plans will simply reinforce the advantages that more populous parts of the country (and, not incidentally, the TSPs, especially the ILECs, with experience in those areas) have over less densely-populated areas. The Commission's objective must continue to be to use the new broadband funding mechanism to help underserved and unserved parts of the country, especially remote areas, to overcome the gaps in adequate broadband access service that the operation of the market, and previous funding initiatives, have failed to address."

69. We also agree with Nunavut Economic Forum (NEF), which noted that allocating funding by region and population distribution would have a deeply negative effect on Nunavut: "Nunavut will be a

clear loser in this proposed model. In fact, it is the allocation of funding on a basis such as that proposed in this model that has resulted in remote communities being the last to receive connectivity investment in Canada."

70. We agree with suggestions that the Commission discourage the use of these funds for overbuilding networks. Our member organizations describe examples of project overbuilds in remote, Northern and Indigenous communities. We also note that Rogers pointed out that past experience with the deferral account funding scheme revealed that competitive forces and technology improvements often led to a situation where ILECs were funded to build out networks in areas already served by competitors, wasting valuable public resources.

71. Proposals should not cite "current average subscriber usage" of an antiquated and poor delivery network to justify upgrading and expanding the same inadequate legacy infrastructure. Many intervenors in CRTC 2015-134 pointed out that usage is likely to grow dramatically once there is adequate and affordable bandwidth.

72. Rather than being viewed as a burden to 'administrative efficiency', communities play an important role in providing information that can identify potential overbuilds and duplication. If service providers directly engage with communities as a condition of their applications, they will exchange information regarding other project that may be in planning stages. Some communities might want to provide their own secure, environmentally safe facilities for telecom providers rather than see new sites and facilities established by the incumbents.

73. The Commission could therefore address the issue of overbuilding network infrastructure through encouraging community engagement. We agree with BCBA, which noted that engagement with local government would enable the fund to avoid unnecessary overbuilds, since local governments are highly unlikely to support projects that serve areas that are already adequately served.

74. We agree with parties that support requirements for open access to transport networks, including Shaw, SSi Micro, Open Media, and NPF-PIAC. Our position is that the Fund should require true open access at reasonable rates and conditions. The Commission could require Fund recipients of a certain size (that is, those which have more than a certain number of endpoint connections) to make their infrastructure open access. Importantly, the specific characteristics of 'open access' must be fairly and clearly defined. Community-based providers have faced challenges in their efforts to access affordable wholesale bandwidth and supporting infrastructure, such as in the case of the Mackenzie Valley Fibre Link.[13]

75. We agree in principle with Teksavvy's point about possible exemptions for smaller providers, including local organizations operating in communities served by FMCC member organizations. However, we note that 20,000 endpoints is a relatively high number: in fact, it might include much of Nunavut or other remote regions served by a single provider. Therefore, we think that the number of endpoints should be set at a much smaller number. The Commission could work with advisors and communities to establish a more appropriate number of endpoints.

76. We disagree with the views of several major TSPs, including Bell Canada, TELUS, and the BC Broadband Association that mandating wholesale access acts as a disincentive for project funding applications and drives up the cost of retail service. These parties claim that there is little demand for wholesale access in rural, remote, Northern and Indigenous communities. For example, TELUS states that: "There is also no evidence that any demand for wholesale access exists in unserved or underserved communities to date or that there will be in the foreseeable future" (quoted in FMCC Reply Comments to 2017-112). Given that TELUS was an active participant in the BSO hearings

[13] See the intervention of FMCC and others in the proceedings leading to *Telecom Decision CRTC 2017-299*, the Commission's denial of Northwestel's "Request for forbearance from the regulation of operation and maintenance services provided to support the Government of Northwest Territories' Mackenzie Valley Fibre Link network". This decision is available at: http://www.crtc.gc.ca/eng/archive/2017/2017-299.pdf

(CRTC 2015-134), the company must be aware of the strong demand for wholesale access expressed by a large number of organizations that already utilize wholesale transport access from TSPs – including some that are customers of TELUS – to provide retail services in those regions. Those providers include FMCC member organizations, among other entities and potential providers.

77. While we agree with the principle and requirement of 'open access', we are concerned about the lack of a precise definition of the term. 'Open access' can be interpreted and implemented in many different ways. For example, an infrastructure can be made 'open access' by allowing for technical interconnection, but there are many other practical and economic barriers that infrastructure owners/operators can implement to block competitors from utilizing that service in practice.

78. A good explanation of challenges related to the outcomes of imprecise definitions of 'open access' is provided in a 2016 report that describes the case of the Alberta SuperNet – a province-wide 'open access' network managed by Bell Canada and Axia that has failed to support the development of local networks in Alberta communities. We discuss this report in detail in our responses to the Commission's questions.

79. We note several other barriers that third-party providers face when accessing 'open access' infrastructure, including:

    - High electrical costs charged by network operators
    - Prolonged delays to secure agreements and in accessing co-location facilities
    - High costs for co-location charged by network operators
    - High costs for access to network (interconnection fees)
    - Slow service times for fixing network (as noted in the Alberta example)

80. Instead, precise requirements for open access including pricing, reliability, technical interconnection and other issues should be specified and regulated. Applicants should be required to provide evidence that they will offer 'open access' at reasonable, transparent and non-discriminatory rates and meet requirements within reasonable time frames.

81. Because the market is limited in remote regions, regulatory oversight will be required. Wholesale rates must be set significantly below retail pricing. Otherwise, providers who wish to offer retail services will be unable to compete with the incumbent. Examples of this problem were cited in the Northwestel proceeding (Telecom Regulatory Proceeding 2012-669), and have be raised by community-based service providers attempting to interconnect with, and purchase wholesale services from, the Mackenzie Valley Fibre Link.[14]

Selection Process: Comparative Selection NOT Reverse Auction

82. If the Commission wants to encourage participation in the Fund by small, community, and Indigenous providers, it should use a comparative selection process and should not rely on reverse auctions. On this issue, we agree with other interveners including KRG, CNOC, Rogers and Sasktel.

83. We oppose a reverse auction process for several reasons. While this approach appears to offer efficiency and objectivity by rewarding the lowest bids for subsidies, it is not appropriate for selecting small and community providers, or for the selection of projects serving remote and Northern regions for the following reasons, which are explained in more detail in our responses to the Commission's questions:

[14] See the intervention of FMCC and others in the proceedings leading to *Telecom Decision CRTC 2017-299*, the Commission's denial of Northwestel's "Request for forbearance from the regulation of operation and maintenance services provided to support the Government of Northwest Territories' Mackenzie Valley Fibre Link network". This decision is available at: http://www.crtc.gc.ca/eng/archive/2017/2017-299.pdf

- Auctions inherently advantage large commercial operators with strong financial abilities to secure projects over not-for-profit organizations.
- The evidence supporting reverse auctions as a success for deployment in these regions is weak.
- Also as CNOC points out, " … reverse auction formulas cannot factor important qualities of a proposed broadband project such as sustainability, wholesale access, scalability, network resiliency and subscriber uses."

84. We disagree with Bell's characterization of the FCC's reverse auction success concerning Native lands and remote regions. In fact, although the FCC's use of reverse auctions is cited as a successful example (by Bell and NPF-PIAC), reverse auctions for services in Alaska and other Tribal regions have not achieved inclusion of any Indigenous providers. In fact, no Indigenous providers or Indigenous/incumbent partnerships have won bids, or even submitted bids, despite their eligibility for the funding.

85. Further, none of the Phase 1 Tribal Mobility Fund auction funds specifically allocated by the FCC "to provide one-time support to deploy mobile voice and broadband services to unserved Tribal lands, which have significant telecommunications deployment and connectivity challenges" went to Indigenous providers. Also, for the vast majority of Tribal service blocks in Alaska, there was only one bidder. Some Indigenous and community organizations that could have competed in this and other FCC reverse auctions cited lack of understanding of the process, and difficulty in preparing bids and in participating in the auction process. They also had problems in meeting eligibility requirements.

86. Also, if there is only one bid, there is no means of assuring that a less expensive proposal could have been submitted. A single TSP can 'game the system' by proposing projects that would use all the funds available. Reverse auction models can threaten to become an 'all of nothing' proposition: if a project fails to deliver the required outcomes, everything covered under a single winning bid can be impacted.

87. We think there would be similar problems with reverse auctions for remote and Indigenous regions in Canada. If the Commission's goal is to stimulate innovation and competition in these regions, including by creating an enabling environment to support the non-profit and Indigenous service providers already operating there, available evidence indicates that a reverse auction model it is not the solution.

88. In contrast, a comparative selection process allows for a holistic assessment of proposed projects, encourage innovation and community engagement, applicant and application diversity. We agree with SaskTel, which stated that "… utilizing an application-based model will ensure funding allocated results in the greatest overall benefit to all stakeholders involved by region by ensuring other pertinent factors beyond price are considered." As well, a comparative selection process can distribute funds throughout a region, thereby 'seeding' innovation across a variety of communities, rather than centralizing it in a single service provider. This better supports the engagement, innovation, community and economic development initiatives undertaken in/by communities.

89. We point to the model developed and utilized by the Navajo Nation Telecommunications Regulatory Authority (NNTRA), which uses a comparative selection process to issue Certificates of Convenience and Necessity (CCNs) to entities offering telecommunications services in Navajo territories. We discuss this model in more detail in our responses to the Commission's questions.

90. The Commission and others have raised questions regarding the administrative overhead of a comparative selection model. While comparing applications for the same region requires time and effort, the number of competitive applications is likely to be small. It should also be noted that it takes significant expertise, time and effort to design, implement and monitor a reverse auction. For remote and thinly populated regions, we disagree with PIAC/NPF that a reverse auction would have lower administrative overhead, be more fair and transparent, better ensure subsidy effectiveness, and be easier for applicants.

91. Instead, the Commission should design a comparative application process to better fit the unique and specific requirements of community-based organizations operating in rural, remote, Northern and Indigenous regions. This also enables innovation and economic development opportunities in these regions and communities, rather than focusing them in southern metropolitan centres.

Conclusion

92. The FMCC respectfully submits these Final Comments, and hopes that they are helpful in the CRTC's deliberations on the development of the broadband funding regime.

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