# Consultation on a Licensing Framework for Residual Spectrum Licences in the 700 MHz, 2500 MHz, 2300 MHz, PCS and 1670-1675 MHz Bands SLPB-003-17

Reply Comments of Rogers Communications Canada Inc. September 4, 2017



#### **Executive Summary**

- E1. Rogers remains supportive of Innovation, Science and Economic Development Canada's plan to auction unassigned or returned spectrum licences. Reducing opening bid prices in service areas that have traditionally been uneconomical to service yet still having some measure of market forces determine the outcome of licensing ensures those companies that value the spectrum the most will be able to acquire it and put the spectrum to its highest use. Auctioning the spectrum will facilitate the deployment and timely availability of services across the country, including rural areas.
- E2. The affiliated and associated entities rules and the rules prohibiting collusion should be integrated into a single framework so that unintended consequences do not benefit one or more bidders in the proposed or future auctions.
- E3. The Department should review and reconsider Conditions of Licence that have widespread support from both national and regional stakeholders, especially those that are unanimously supported. The elimination or frequency reduction of annual reporting would reduce the administrative burden on carriers and the Department. The research and development Condition of Licence should also be eliminated or, at a bare minimum, be reduced and compensate for changes in Canadian Revenue Agency requirements.

#### Introduction

- Rogers Communications Canada Inc. (Rogers) welcomes the opportunity to reply to comments filed by other parties in response to SLPB-003-17: Consultation on a Licensing Framework for Residual Spectrum Licences in the 700 MHz, 2500 MHz, 2300 MHz, PCS and 1670-1675 MHz Bands¹ (the Consultation), published on Innovation, Science and Economic Development Canada's (ISED or the Department) website on August 17, 2017.
- 2. Rogers stated its position on all of the issues raised in the Consultation in its comments of August 15, 2017. This reply is limited to comments on proposals made by other parties. Failure to address any specific issue raised by other parties should not be taken by the Department as Rogers' acquiescence with the position.

<sup>&</sup>lt;sup>1</sup> ISED, SLPB-003-17: Consultation on a Licensing Framework for Residual Spectrum Licences in the 700 MHz, 2500 MHz, 2300 MHz, PCS and 1670-1675 MHz Bands (Consultation); <a href="http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11287.html">http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11287.html</a>.

#### Rogers' Reply to Comments of Other Parties

## Q1 — ISED is seeking comments on the choice of licences being made available through this licensing process:

- a. are there other licences that should be made available in this licensing process? and
- b. are there any of these licences that should not be included in this licensing process?
- 3. Commenters are generally supportive of the Department's efforts to make available unassigned or returned spectrum licences in this licensing process. Ecotel does not propose the inclusion of any new bands in this auction process but states, "ISED should assess how 850 extended cellular band (3GPP band 26) formerly used by Telus iDEN services, could be eventually made available to carriers in specific areas through a subsequent process." Rogers agrees that TELUS' ESMR spectrum holdings should be taken into account when considering competitive measures for spectrum auctions, especially auctions for low band spectrum, such as the Department's pending 600 MHz consultation.
- 4. TELUS proposes that the Department should consider including first-come, first-served (FCFS) PCS spectrum licences in the auction since it may be more economic for licensees to acquire this spectrum through an auction compared to the FCFS process which requires the payment of annual spectrum licence fees.<sup>4</sup> Rogers supports this option to provide a cost-effective yet competitive process to ensure that unassigned spectrum is put into the hands of facilities-based operators, who continue to invest heavily in providing wireless services to Canadians, including those in rural and remote areas
- 5. A number of commenters have similar positions to Rogers on the lack of an ecosystem for the I Block band, and they go further by suggesting that the Department not auction that spectrum until an ecosystem is developed or at least a band plan appears likely.<sup>5</sup> While Rogers supported the renewal of I Block licences in the AWS-1 licence renewal process to allow licensees a chance to recoup their acquisition costs,<sup>6</sup> Rogers supports the position that the Department retain this

<sup>&</sup>lt;sup>2</sup> Ecotel Comments, para 11.

<sup>&</sup>lt;sup>3</sup> ISED, Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band; <a href="http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11316.html">http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11316.html</a>.

<sup>&</sup>lt;sup>4</sup> TELUS Comments, para 6.

<sup>&</sup>lt;sup>5</sup> Ecotel Comments, para 13; Bell Comments, para 8; TELUS Comments, para 10; SaskTel Comments, para 22.

<sup>&</sup>lt;sup>6</sup> Rogers Reply Comments, *Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum*, para 7.

unassigned spectrum until there is greater certainty about an ecosystem direction and then auction the spectrum at that time.

#### Q2 — ISED is seeking comments on its proposals to:

- a. maintain the spectrum aggregation limits on the 700 MHz licences;
- b. maintain the spectrum aggregation limits on the 2500 MHz licences including newly available 2585-2595 MHz licences; and
- c. not impose competitive measures on other licences issued through this licensing process.
- 6. As we state in our comments, Rogers does not normally support set asides or caps that can interfere with the operation of market forces and artificially distort outcomes, providing an unfair subsidy to one or more competitors at the expense of others.<sup>7</sup> However, Rogers has noted in previous residual auctions that limits could be appropriate where a single operator (network) could acquire the majority or all of the spectrum available in a single band.<sup>8</sup> Upon reviewing the comments for this Consultation, Rogers continues to believe that the proposed aggregation limits for the 700 MHz and 2500 MHz bands should be maintained through this particular licensing process.
- 7. Our position on the 700 MHz and 2500 MHz bands is due to these bands having been auctioned previously subject to aggregation limits. However, the Department should reject Eastlink and Xplornet's proposal to introduce new measures on the PCS G Block.<sup>9</sup> This is spectrum that was previously unassigned during open auction processes that both Eastlink and Xplornet were eligible to participate in and chose not to bid. Imposing new restrictions on unassigned spectrum would only serve to further distort competition by providing additional unnecessary subsidies to well-capitalized companies at the expense of Canadian taxpayers or other licensees. For its part, Shaw offers explicit support for maintaining limits on the 700 MHz and 2500 MHz bands and does not propose any competitive measures on other licences.<sup>10</sup> Bell and TELUS also support the Department's proposal to not impose competitive measures on the PCS G Block, I Block, and 2300 MHz licences issued through this licensing process.<sup>11</sup>

<sup>&</sup>lt;sup>7</sup> Rogers Comments, para 7.

<sup>&</sup>lt;sup>8</sup> Rogers Reply Comments, *Consultation on a Licensing Framework for Residual Spectrum Licences in the 700 MHz and AWS-3 Bands*, para 6-10.

<sup>&</sup>lt;sup>9</sup> Eastlink Comments, para 9; Xplornet Comments, page 2.

<sup>&</sup>lt;sup>10</sup> Shaw Comments, para 2 (Appendix).

<sup>&</sup>lt;sup>11</sup> Bell Comments, para 12; TELUS Comments, para 18.

#### Q3 — ISED is seeking comments on:

- a. the likely timeframe for availability of equipment capable of providing access to licensed spectrum on an opportunistic basis;
- b. licence terms:
- c. the proposal to apply"" deployment levels to each of the licences as described in annex F; and
- d. the proposed conditions of licence as outlined in annexes A through F.
- 8. Similar to the Department's recent inquiry on opportunistic sharing during the AWS-1 licence renewal consultation, 12 commenters in this Consultation are overwhelmingly of the opinion that the Department should take a very cautious approach when exploring opportunistic sharing, particularly in relation to licensed spectrum. Commenters view opportunistic sharing technology as still being years away from commercial deployment with substantial technical, regulatory, and business challenges to overcome before it becomes a reality. Bell believes that, once opportunistic spectrum access technology matures, it should be trialed in "Greenfield spectrum" to not unduly impact exclusively licensed spectrum. Rogers is in agreement with these parties concerning this issue.
- 9. All industry stakeholders commenting on the Consultation, from national operators to AWS-1 entrants and regional carriers, continue to be concerned about the potential for massive, negative disruption of facilities-based competition built on exclusive licences. This is the view of a large number of submissions that state any exploration of opportunistic access should be proceeded by a comprehensive ISED consultation once the technology matures to a point that it can be trialed.<sup>15</sup>
- 10. Support for 20-year terms for all Consultation bands is nearly unanimous in the submitted comments, excepting the I Block licence where the Department proposed 10-year terms. Due to the lack of developed ecosystem for the I Block, Eastlink support 20-year terms to allow the ecosystem time to develop and licensees a chance to recoup their spectrum costs while Bell supports either a 10-year or 20-year term.<sup>16</sup> Should the Department choose to auction the I Block spectrum, Rogers

<sup>&</sup>lt;sup>12</sup> ISED, Comments received on Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum; <a href="http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11315.html">http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11315.html</a>.

<sup>&</sup>lt;sup>13</sup> Telus Comments, para 25; Bell Comments, para 14-15; SaskTel Comments, para 37.

<sup>&</sup>lt;sup>14</sup> Bell Comments, para 16.

<sup>&</sup>lt;sup>15</sup> Eastlink Comments, para 11. Xplornet Comments, page 3; TELUS Comments, para 25; SaskTel Comments, para 11; Bell Comments, para 17.

<sup>&</sup>lt;sup>16</sup> Bell Comments, para 20; Eastlink Comments, para 12.

supports 20-year terms for I Block licences. This would provide adequate time for an equipment ecosystem to be developed and deployed while allowing enough time for investment in both the network and spectrum to be recovered. Additionally, it would harmonize licence terms with other more recently auctioned and renewed spectrum bands.

- 11. CCl's proposal of decreasing spectrum licence terms to 5-years should be strongly rejected by the Department,<sup>17</sup> as it would cause licensees a great deal of uncertainty with respect to the ongoing viability of their operations, network planning purposes, and ability to secure additional funding for their substantial ongoing investments.
- 12.A number of commenters support the Department's proposed deployment levels, <sup>18</sup> while Ecotel and the BC Broadband Association propose Tier 4 obligations. <sup>19</sup> TELUS also supports modestly increased targets but did not provide specific numbers. <sup>20</sup> However, Eastlink and Shaw both propose less demanding obligations, though Eastlink's recommendation applies only to the I Block. <sup>21</sup> Rogers believes that ISED has struck the right balance with its proposed levels.
- 13. Telus and Bell once again call for the removal of the mandatory roaming condition of licence, <sup>22</sup> a position the Department should continue to firmly reject. Telus states, in light of the CRTC Telecom Regulatory Policy (TRP) 2015-177, "the current situation gives rise to unnecessary and duplicative regulation, so the Department could investigate to what extent CPC-2-0-17 could be amended."<sup>23</sup>
- 14. In fact, as Rogers identified in our AWS-1 renewal comments, <sup>24</sup> TRP 2015-177 does not duplicate CPC-2-0-17 and ISED's mandatory roaming provisions remain necessary. While TRP 2015-177 did establish rate regulation for wholesale roaming services provided to non-national carriers, Client Procedures Circular (CPC) 2-0-17 Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements covers important areas not contemplated by the CRTC, including the mandated roaming requirement itself. CPC-2-0-17 further includes a roaming request process backed-up by commercial negotiation timelines and arbitration if the two parties cannot come to a roaming agreement. This end-to-end process benefits millions of Canadian mobile customers

<sup>&</sup>lt;sup>17</sup> CCI Comments, page 3.

<sup>&</sup>lt;sup>18</sup> Bell Comments, para 21; Xplornet Comments, page 3; SaskTel Comments, para 45; Ice Wireless Comments, para

<sup>&</sup>lt;sup>19</sup> Ecotel Comments, para 29; BC Broadband Association Comments, para 18.

<sup>&</sup>lt;sup>20</sup> TELUS Comments, para 32.

<sup>&</sup>lt;sup>21</sup> Eastlink Comments, para 13; Shaw Comments, para 17.

<sup>&</sup>lt;sup>22</sup> Telus Comments, para 34; Bell Comments, para 6.

<sup>&</sup>lt;sup>23</sup> Telus Comments, para 44.

<sup>&</sup>lt;sup>24</sup> Rogers Reply Comments, *Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum*, para 26.

by balancing the objective of encouraging the "deployment of advanced networks that provide the greatest choice of basic and advanced services available at competitive prices to the greatest number of Canadians"<sup>25</sup> with the fact that operators may require access to wholesale roaming services on a reasonable basis as they continue to expand their networks in an orderly manner. The mandatory roaming condition of licence therefore remains every bit as necessary today as when it was first introduced.

- 15. ISED must therefore maintain the current mandatory regime. TRP 2015-177 does not duplicate the conditions of licence. The mandated roaming requirements remain essential, especially in light of the Bell/Telus joint network, whereby each partner only builds out their Radio Access Network to an area roughly equal to their own wireline footprint. Contrary to Bell's assertion, mandated roaming is not at odds with facilities-based competition but their joint network arrangement is. It has allowed Bell and Telus to avoid investing billions of dollars into their network. Mandated roaming is one of the few policies that mitigates the economic advantage their joint network creates.
- 16. Rogers fully supports the comments from Bell, Eastlink, and TELUS that call for the elimination of the research and development ("R&D") condition of licence requirement. It was implemented when the wireless industry was in an early stage of development where a higher R&D spend would be expected to launch nascent wireless networks. The R&D requirement is no longer appropriate in today's mature wireless industry where carriers require greater flexibility over investment decisions, including with R&D as seen below. Further, as SaskTel notes, there is a large administrative burden associated with the gathering, auditing and generating of R&D reports.<sup>27</sup>
- 17. In its comments, Bell states that, in recent years, the Canada Revenue Agency (CRA) has changed its rules as to what qualifies as SR&ED spending. As a result, a certain amount of labour and capital expenditures are no longer eligible to be claimed as SR&ED.<sup>28</sup> These CRA changes have made it even more difficult for wireless carriers, as they can no longer claim certain activities as SR&ED, while the 2% revenue requirement itself continues to grow in terms of absolute levels.
- 18. As a result, Rogers supports calls to eliminate the R&D requirement. At a minimum, Rogers supports Bell's proposal to reduce the 2% requirement to a lower percentage

<sup>&</sup>lt;sup>25</sup> ISED, CPC-2-0-17 — Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements, Issue 1; <a href="http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10563.html#Roaming">http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10563.html#Roaming</a>.

<sup>&</sup>lt;sup>26</sup> Rogers Comments, para 18; Telus Comments, para 36; Bell Comments, para 26; Eastlink Comments, para 14.

<sup>&</sup>lt;sup>27</sup> SaskTel Comments, para 50.

<sup>&</sup>lt;sup>28</sup> Bell Comments, para 25-vii.

(Bell provides 1% as an example but even that may be too high).<sup>29</sup> A lower percentage would make it less difficult for licensees to meet the requirement despite the CRA rule changes that limit eligible SR&ED claims. As an alternative, Rogers would recommend the implementation of a cap on the 2% R&D requirement. Once the 2% reaches a certain revenue threshold (for example \$100 million) the licensee's 2% of adjusted gross revenues is capped at that level and cannot increase. The cap would prevent the R&D requirement from distorting the marketplace and the investment decisions of licensees and thereby free up more capital to invest in the expansion of wireless coverage in remote areas and in advanced new services, such as 5G.

19. A number of submissions, including those by Bell, Eastlink, SaskTel, and TELUS, propose modification of the annual reporting condition of licence in order to help reduce administrative burdens for both the Department and licence holders. Alternative models for reporting requirements could involve moving to an "asrequested" model, where carriers are only obligated to provide only those documents specifically requested by ISED each year or increasing the length of time between the filing of certain reports. Such a move would reduce the regulatory and engineering burden on operators, as well as the Department, while still ensuring ISED can adequately monitor spectrum licensees to fulfill its mandate. Rogers fully supports these proposals.

#### Q4 — ISED is seeking comments on its proposals:

- a. to use the sealed-bid auction format for the auction of residual licences, and
- b. on the timelines set out in the Proposed Table of Key Dates.
- 20. Most commenters support the use of a sealed-bid auction format for the licensing of residual licences listed in the Consultation, though Bell, similar to Rogers, qualify their support as generally preferring the use of open bidding for the licensing of mobile spectrum.<sup>31</sup> SaskTel recommends an SMRA format to be used for the residual licences, while TELUS and Xplornet suggest an alternative method that includes a price discovery mechanism specifically for the 2500 MHz band.<sup>32</sup> Rogers notes that a different auction method would only be required should the Department accept changes to 2500 MHz aggregation limits. Rogers still believes the reduction in complexity for bidders and the Department using a sealed-bid process is well

<sup>&</sup>lt;sup>29</sup> Bell Comments, para 27.

<sup>&</sup>lt;sup>30</sup> SaskTel Comments; para 54; Bell Comments, para 35; TELUS Comments, para 45; Eastlink Comments, para 14.

<sup>&</sup>lt;sup>31</sup> Bell Comments, para 40.

<sup>&</sup>lt;sup>32</sup> SaskTel Comments, para 52; Xplornet Comments, page 4; TELUS Comments, para 48.

suited to assigning the smaller number of residual licences remaining in bands that have been recently auctioned.

Q5 — ISED is seeking comments on its proposal to include package bidding for 2500 MHz licences in the sealed bid auction format.

21. While many commenters, including Bell, Eastlink, Shaw, and Ice Wireless support the proposal to include package bidding for 2500 MHz licences,<sup>33</sup> some do not support it. Although some smaller carriers believe that the packages are too large, TELUS suggests they are not large enough.<sup>34</sup> Rogers still supports the proposed package bid groupings of spectrum allowing prospective bidders to secure spectrum for all eligible service areas where they are under the aggregation limit. For larger service area licences that remain uneconomical for a small provider to acquire, voluntary spectrum arrangements, including spectrum subordination, are available to provide the necessary access to spectrum while limiting the risk of interference to larger providers.

Q6 — ISED is seeking comments on its proposal to use a second-price rule for this auction and the Vickrey price determination mechanism.

22. Comments show there is broad support for Department's proposed use of a secondprice mechanism, including use of the "nearest Vickery" to determine the auctioned licence prices.<sup>35</sup>

Q7 — ISED is seeking comments on the proposed opening bids as presented in tables 7, 8, 9 and 10.

23. Commenters' views on the proposed opening bid prices presented in tables 7, 8, 9 and 10 of the Consultation are varied. Bell and TELUS wish to generally increase

<sup>&</sup>lt;sup>33</sup> Bell Comments, para 42; Eastlink Comments, para 17; Shaw Comments, para 11; CCI Comments, page 3; Ice Wireless Comments, para 11.

<sup>&</sup>lt;sup>34</sup> Xplornet Comments, page 4; CCI Comments, page 3; BC Broadband Association, para 23; Ecotel Comments, para 40; TELUS Comments, para 50.

<sup>&</sup>lt;sup>35</sup> Bell Comments, para 43. Eastlink Comments, para 18; Shaw Comments, para 10; Xplornet Comments, page 5; Ecotel Comments, para 45; Ice Wireless Comments, para 12.

opening prices, while Ice Wireless, SaskTel and the BC Broadband Association want opening prices for some or all Consultation bands reduced.<sup>36</sup> Ecotel states that opening prices are satisfactory, as long as the licence service areas are reduced to Tier 4.<sup>37</sup> Only Rogers, Shaw, and Eastlink are generally supportive.<sup>38</sup> After reviewing the comments, Rogers still believes that, as these prices were used in previous auctions or have been reduced in auctions where the spectrum was previously made available and remained unawarded, the proposed opening prices are set at appropriate levels.

Q8 — ISED is seeking comments on its proposed rules regarding Affiliated and Associated Entities, which would apply to applicants and bidders in the upcoming auction of residual spectrum licences.

- 24. Although most commenters support the Department's proposed rules, Ice Wireless notes their opposition to "any rule that allows Affiliated or Associated entities to make separate bids or that applies spectrum aggregation limits separately between Affiliated or Associated entities." More specifically, they share their concern that the rules regarding associated entities may enable manipulation to allow aggregation in excess of what is permitted by the licensing framework.
- 25. Rogers shares this concern and believes that the Department should very carefully evaluate and take all the necessary steps to ensure the proposed affiliated and associated entities rules promote a fair and efficient outcome in the both the current residual auction and, importantly, all future spectrum licence auctions.

Q9 — ISED is seeking comments on the rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming auction of residual spectrum licences.

26. Commenters are unanimous with their support of the collusion rules, excepting Bell, who had no comment.<sup>40</sup> However, Rogers still believes that the Department must integrate its policies and auction rules regarding collusion and affiliated and

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<sup>&</sup>lt;sup>36</sup> Bell Comments, para 44; TELUS Comments, para 55-62; Ice Wireless Comments, para 14; SaskTel Comments, para 56; BC Broadband Association, para 27.

<sup>&</sup>lt;sup>37</sup> Ecotel Comments, para 48.

<sup>&</sup>lt;sup>38</sup> Rogers Comments, para 28; Eastlink Comments, para 19; Shaw Comments, para 9 (Appendix).

<sup>&</sup>lt;sup>39</sup> Ice Wireless Comments, para 16.

<sup>&</sup>lt;sup>40</sup> Bell Comments, para 49.

associated entities within a single framework to ensure that unintended consequences do not benefit one or more bidders. This is especially true in the case where operators have extensive, detailed knowledge of partners' networks and spectrum needs, which results in less need of formal communication between these bidders during auctions.

#### Q10 — ISED is seeking comments on:

- c. the proposed auction process for the auction of residual licences;
- d. the proposed use of Canada Post's ePost Connect services for auction applications, associated documentation and bid forms; and
- e. section 8.12, the proposal to auction some or all of the frequency bands separately. Please include any preferences on the order of the bands.
- 27. Most commenters support the proposed auction process for submitting applications to participate in the auction for residual spectrum licences in the Consultation. However, SaskTel has some concerns regarding the lack of a mechanism for the backup submission of documents in the event of unforeseen circumstances that might make the Canada Post ePost Connect service unavailable.<sup>41</sup> Given the importance and sensitivity of the information being provided, Bell requests that ISED provide training and/or a preliminary test of Canada Post's ePost Connect services for auction applications, associated documentation and bid forms.<sup>42</sup>
- 28. Rogers supports Bell's request for Department led training and/or a preliminary test of Canada Post's ePost Connect services. During the training or Clarification Questions Period, the Department should also provide guidance on the backup processes or extensions should Canada Post ePost Connect service become unavailable.
- 29. While some commenters simply offered support for the Department's proposal to auction in a single round, some requested a specific order or a request to provide the order in confidence. Rogers does not have a preference for the order of the bands for this auction process but supports the principle of the Department auctioning some or all of the spectrum frequency bands separately, including different blocks within individual bands.

<sup>&</sup>lt;sup>41</sup> SaskTel Comments, para 62.

<sup>&</sup>lt;sup>42</sup> Bell Comments, para 50.

### Q11 — ISED is seeking comments on the proposed renewal process.

- 30. Most commenters offer support of the Department's proposed renewal process, with Ecotel, Ice Wireless and the BC Broadband Association arguing that any unassigned spectrum from the Consultation following the residual auction be made available using a FCFS process.<sup>43</sup> As the spectrum would have been made available through competitive auctions and is primarily available outside of major urban markets, and the Department identified FCFS as a possible process,<sup>44</sup> Rogers supports assigning any remaining spectrum on a FCFS basis.
- 31. In addition, the BC Broadband Association and Xplornet highlight the need for a minimum notification period (2 and 1 years, respectively) should any spectrum not be renewed.<sup>45</sup> Rogers supports the proposal that licences which are not renewed or are reallocated for other services should have a sufficient notification period to provide the incumbent licensees with the time needed to plan and execute their transition out of the band.
- 32. Rogers thanks the Department for the opportunity to share its views and participate in this process.

<sup>&</sup>lt;sup>43</sup> Ecotel Comments, para 56; Ice Wireless Comments, para 22; BC Broadband Association Comments, para 31.

<sup>&</sup>lt;sup>44</sup> ISED, *Consultation*, para 122.

<sup>&</sup>lt;sup>45</sup> BC Broadband Association Comments, para 32; Xplornet Comments, page 6.