

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

Comments of  
Rogers Communications Canada Inc.  
August 15, 2017



## **Executive Summary**

- E1. Spectrum is a critical input for satisfying the growth in demand for mobile broadband services in Canada. Canadians are among the heaviest users of mobile data services globally and their demand for mobile data services will continue to increase dramatically. As a service provider that continues to invest heavily in advanced wireless networks and is the Canadian leader in the deployment of the Internet of Things, Rogers requires continued additional spectrum in order to satisfy its customers' growing demand for mobile data services.
- E2. Rogers supports 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.
- E3. 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.

## Introduction

1. Rogers Communications Canada Inc. (Rogers) is pleased to provide Innovation, Science and Economic Development Canada (ISED or the Department) with the following comments 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 Bands*<sup>1</sup> (the Consultation), published in the *Canada Gazette*, Part I, July 15, 2017.
2. Effective spectrum licensing regimes help Canadian network operators meet the constant, increasing demand for data. Canadians use their mobile devices far more than users in most other countries. Canada's mobile data traffic grew 41% in 2016, and is expected to grow 5-fold from 2016 to 2021, a compound annual growth rate of 36%.<sup>2</sup> The dramatic growth in demand for mobile data services will be fuelled in part as Canadian consumers and businesses embrace the Internet of Things, with Cisco predicting a Machine-to-Machine compound annual growth rate of 77%.<sup>3</sup>
3. As a large wireless operator focused on the provision of advanced new broadband services, including capacity-hungry video services such as NHL GameCentre LIVE and 4K programming, Rogers knows that operators require sufficient spectrum to keep pace with Canadians' demand for mobile services. In order to address the dramatic growth in demand for mobile data services, we have already made very significant investments to deploy Long Term Evolution (LTE) mobile broadband technology to approximately 95% of the Canadian population.<sup>4</sup> Rogers also continues to deliver innovative wireless services, such as being the first provider in Canada to offer Voice over Long Term Evolution (VoLTE). This technology is the next evolution in wireless calling, giving customers with a VoLTE-compatible phone clear, natural sounding voice and video calls.
4. Yet, for facilities-based operators like Rogers to continue providing Canadians with the most advanced and innovative connectivity technology solutions, they must acquire additional licensed spectrum that is the essential input for their networks. Rogers' need for more spectrum is particularly acute in light of the fact that its principal competitors, Bell and TELUS, have formed a joint network. The unintended consequence of the Department's recent spectrum policies have resulted in Bell and TELUS being able to take advantage of aggregation limits to contribute twice as

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<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); <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11287.html>.

<sup>2</sup> Cisco, *VNI Mobile Forecast Highlights, 2016-2021*; [http://www.cisco.com/c/dam/assets/sol/sp/vni/forecast\\_highlights\\_mobile/index.html#~Country](http://www.cisco.com/c/dam/assets/sol/sp/vni/forecast_highlights_mobile/index.html#~Country)

<sup>3</sup> Ibid.

<sup>4</sup> Rogers, *Rogers Communications Reports First Quarter 2017 Results*, April 2017.

much spectrum towards their joint network, impairing Rogers' ability to compete effectively with its primary LTE competitors.

5. The remainder of Rogers' comments will respond to the specific issues raised in the Consultation Paper.

**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?

6. Rogers supports the Department's efforts to make available unassigned or returned spectrum licences in bands that have already been widely deployed in Canada, excepting the 1670-1675 MHz band due to a complete lack of equipment ecosystem. Part of an effective management of the radio frequency spectrum resource is ensuring that spectrum is put into the hands of facilities-based operators that continue to invest heavily in providing wireless services to Canadians, including those in rural and remote areas.

**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.

7. 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. This is especially true in areas where the spectrum has remained unawarded through previous auctions. In general, Rogers supports the use of open bidding for the licensing of mobile spectrum so that those companies that value the spectrum the most will be able to bid for it and put the spectrum to its highest use. This will also ensure that Canadians will derive the maximum benefits from this scarce and valuable resource.

8. However, as the proposed licences to be auctioned have previously been subject to aggregation limits, Rogers does not object to them being maintained through this licensing process.

**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.

9. As noted in our recent comments for the *Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum*, the Department should take a very cautious approach when exploring opportunistic access so as not to negatively affect the advanced mobile networks that already provide connectivity to digital technologies and services that is a defining feature of the digital economy.<sup>5</sup> Opportunistic sharing technology is still years away from commercial deployment and has substantial technical, regulatory, and business challenges to overcome before it becomes a reality.
10. Once these technical challenges have been solved, trials should be restricted to bands with open spectrum designations, lightly licensed mobile bands or bands with limited users in restricted geographic areas that will be protected from interference. This will allow the Department to trial new spectrum management technologies and policies in bands that do not pose large risks to incumbent licensees and the extensively deployed communications infrastructure already providing advanced connectivity to Canadians. The Department should also recognize the large amount of spectrum already available for unlicensed use vis-à-vis the much smaller amount of licensed cellular mobile radio spectrum.
11. Once trials have proven successful and stakeholders have a better understanding of the implications of the technology, the Department should launch a comprehensive consultation process to ensure such a fundamental change in spectrum planning and usage is in the public interest. Licensees have spent over \$14 billion at spectrum auctions since 2001 on acquiring exclusive licences and more than an

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<sup>5</sup> Rogers, *Comments on Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum*, para 17.

estimated \$2.3 billion in spectrum fees.<sup>6</sup> They have invested a further \$44.8 billion since 1985 to construct world class networks and infrastructure to service Canadians.<sup>7</sup> Canadian wireless providers must clearly understand all of their rights and obligations upfront.

12. Rogers supports the Department's proposal to licence the 700 MHz, 2500 MHz, WCS, and PCS bands for 20-year term and that the licensee will have a high expectation that a new licence will be issued for a subsequent term through a renewal process. 20-year terms are consistent with licence terms for recent spectrum auctions and renewed PCS spectrum licences. This approach provides licensees with a greater degree of certainty with respect to the ongoing viability of their operations, for network planning purposes, and in order to secure additional funding for their substantial ongoing investments.
13. Rogers also supports the Department's proposal to apply deployment levels to each of the licences as described in annex F, consistent with licences for the same bands issued through previous auctions.
14. With respect to lawful interception, it is important to note that mobile spectrum licensees, such as Rogers, have a long history of cooperation with law enforcement and security agencies, subject to appropriate legal processes and judicial oversight. Moreover, Rogers' significant investment in the technology, resources and expertise that are required to support lawful interception activities is a substantial benefit that accrues directly to the Canadian public.
15. However, Rogers strongly believes that any lawful interception obligations, imposed as a condition of licence or pursuant to legislation, should be limited to capabilities that are provided for in industry standards and incorporated in commercially available equipment. Licensees should not be required to fund intercept capabilities that are not provided for in industry standards and commercially available equipment.
16. Technology vendors will be more likely to build equipment based on industry standards because this will generally be more economic than building unique or proprietary solutions for which there will be relatively limited demand. Defining lawful intercept requirements based on industry standards will result in greater availability of technology, better on-going support, and lower cost than non-standardized requirements.

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<sup>6</sup> ISED, *Spectrum Auctions*; [http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h\\_sf01714.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01714.html). Note: \$14B is nominal and does not account for inflation. Spectrum fees calculated based on industry holdings

<sup>7</sup> CWTA, *Facts & Figures: Investment and Job Creation in Canada*; <https://www.cwta.ca/facts-figures/>.

17. We believe that the Department should clarify the proposed wording of the condition of licence such that the lawful interception capabilities that must be maintained will be limited to those capabilities that are provided for in industry standards and incorporated in commercially available equipment.
18. The research and development (“R&D”) condition of licence has served its purpose and should be phased out. As the Department has noted elsewhere, this condition of licence was initially established to stimulate R&D in the telecommunications sector when the first mobile spectrum licences were issued in the mid-1980s.<sup>8</sup> Since then, billions of dollars have been invested in R&D and the mobile industry in Canada is well established. This condition has therefore achieved its objective and is no longer required.
19. Rogers agrees with the *Telecommunications Policy Review Panel Final Report* and the *OECD Telecommunications Regulatory Institutional Structures and Responsibilities* report, which cautioned against the mix of regulation and industrial development strategy.<sup>9</sup> The Department has other alternatives for encouraging R&D in Canada. We would also note that the U.S., U.K. and Australia do not impose an R&D condition of licence and Rogers is not aware of any other jurisdiction that imposes such a condition of licence. Market forces will ensure that wireless equipment manufacturers and licensees will continue to invest heavily in R&D to enhance their competitive position.
20. As was highlighted in the Department’s recent *Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum*, 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. 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. This forces licensees to invest in a shrinking prescribed list of R&D activities to meet guidelines, reducing capital available for needed investments. These are some of just a few of the challenges of this condition of licence that also result in a large administrative burden associated with the gathering, auditing and generating of R&D reports. It further demonstrates why this mix of regulation and industrial development strategy is no longer good policy.
21. As a result, Rogers supports calls to eliminate the R&D requirement. At a minimum, Rogers proposes to reduce the 2% requirement to a much lower percentage. A lower percentage would make it less difficult for licensees to meet the requirement

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<sup>8</sup> ISED, *Consultation on Revisions to the Framework for Spectrum Auctions in Canada*;  
<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09371.html#DGRB00109.06.1>.

<sup>9</sup> Ibid.

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 5G services.

22. The Department should modify the annual reporting condition of licence in order to help reduce administrative burdens for both the Department and licence holders. Current annual reports consume significant regulatory and engineering resources within wireless operators to generate and appear to provide uncertain value for ISED at such a high frequency. Alternative models for reporting requirements could involve moving to an "as-requested" 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 provision of certain reports. Such a move would reduce the administrative burden on operators, as well as the Department, while still ensuring ISED can adequately monitor spectrum licensees to fulfill its mandate.
23. Rogers supports the mandatory roaming condition of licence. 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 duplicated by the CRTC Telecom Regulatory Policy 2015-177, 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 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>10</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.

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<sup>10</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*; <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10563.html#Roaming>.



**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.

24. Generally speaking, Rogers fully supports the use of open bidding for the licensing of mobile spectrum. The use of a sealed-bid format, as opposed to an SMRA or CCA, lacks a price discovery mechanism and prevents bidders from switching between different sets of licences in response to demand expressed by other bidders.

25. Notwithstanding our support of an SMRA or CCA format, Rogers supports the use of a sealed-bid auction format for the licensing of residual licences listed in the Consultation. We also support the timelines in the Proposed Table of Key Dates for a sealed-bid auction format. The reduction in complexity for both bidders and the Department is well 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.**

26. We support the proposal to include package bidding for 2500 MHz licences. The proposed package bid groupings of spectrum should still allow prospective bidders to secure spectrum for all eligible service areas where they are under the aggregation limit. Package bidding would reduce the risk for eligible bidders trying to acquire spectrum and provide service across a larger area.

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

27. Rogers supports the use of a second-price mechanism, including use of the “nearest Vickrey” to determine the auctioned licence prices.

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

28. We support the proposed opening bid prices presented in tables 7, 8, 9 and 10 of the Consultation, as these prices were used in previous auctions or have been reduced in auctions where the spectrum was previously made available and remained unawarded.

**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.**

29. Rogers believes that the Department should 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.**

30. Rogers believes that the Department must integrate its policies and auction rules regarding collusion and affiliated and associated entities within a single framework to ensure that unintended consequences do not benefit one or more bidders.

**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.

31. Rogers supports the proposed auction process for submitting applications to participate in the auction for residual spectrum licences in the Consultation. Further,

Rogers supports the Department's Clarification Questions Process as detailed in Part 11.

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

32. Rogers supports the Department's proposal that licensees will have a high expectation of renewal at the end of the initial licence term. It is essential that licensees that comply with their licence conditions have the certainty needed to make the significant investments required to deploy advanced wireless networks.
  
33. Rogers thanks the Department for the opportunity to share its views and participate in this process.