



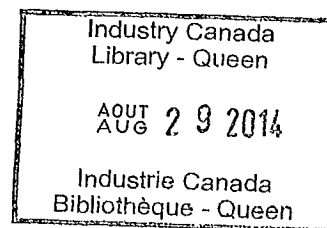
Industry  
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DGSO-004-13  
November 2013

Spectrum Management and Telecommunications

## Decisions Concerning the Renewal of 2300 MHz and 3500 MHz Licences



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Canada 

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## 1. Intent

1. Through the release of this document, Industry Canada hereby announces the decisions resulting from the consultation process undertaken in DGSO-006-12 — Consultation on Renewal Process for 2300 MHz and 3500 MHz Licences.
2. All comments and reply comments received in response to the consultation are available on Industry Canada's website at [http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h\\_sfl0204.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sfl0204.html).

## 2. Mandate

3. The Minister of Industry, through the *Department of Industry Act*, the *Radiocommunication Act* and the *Radiocommunication Regulations*, with due regard to the objectives of the *Telecommunications Act*, is responsible for spectrum management in Canada. As such, the Minister is responsible for developing goals and national policies for spectrum resource use and for ensuring effective management of the radio frequency spectrum resource.

## 3. Background

4. In October 2012, Industry Canada published DGSO-006-12 — Consultation on Renewal Process for 2300 MHz and 3500 MHz Licences (hereinafter referred to as “the consultation”), which sought comments on the renewal of spectrum licences for Wireless Communication Services (WCS) and Fixed Wireless Access (FWA). These services operate in the frequency bands 2305-2320 MHz and 2345-2360 MHz (2300 MHz band) and in 3475-3650 MHz (3500 MHz band) respectively. Three auctions were held to award licences in these bands: a simultaneous multiple-round ascending auction in 2004, a two-phase residual auction in 2004 and 2005, and a sealed-bid, second-price auction in 2009. Licences awarded under these three auctions begin to expire in March 2014, and are within the scope of this renewal process. In addition to comments on renewal options, comments were sought on proposed wording to reflect the change to the current deployment requirement and proposed changes to the licence term condition of licence.

5. Comments and/or reply comments were received from a total of 51 respondents, namely ABC Communications (ABC), AireNet Internet Solutions (AireNet), Andrews Wireless, AT&T, Axia SuperNet Ltd. (Axia), Bell Canada – Inukshuk Wireless Partnership – Rogers Communications Partnership (Inukshuk), BLURR Wireless, Canadian Network Operators Consortium Inc. (CNOC), Canadian Tower Corporation (Canadian Tower), Canwisp, ccRoute Inc. (ccRoute), Chatham Internet Access, Ciel Satellite Limited Partnership (Ciel), Cintek Inc. (Cintek), Cogeco Cable Inc. (Cogeco), Conférence régionale des Élu(e)s du Bas-Saint-Laurent (CRÉ), Eastlink, Ericsson Canada Inc. (Ericsson), ET Group, Genesis Networks Inc. (Genesis), GL Mobile Communications (GL Mobile), Global TD-LTE Initiative (GTI), Government of Alberta, Grey County, High Speed Crow Inc. (High Speed Crow), Huawei Canada, iTéract, King Township, La coalition des fournisseurs d'accès à Internet sans-fil du Québec (CFAISFQ), MTS Inc. and Allstream Inc. (MTS Allstream), Netago, Nextwave Wireless Inc. (Nextwave), Oxford County, Peace River Internet Society, Québecor Média inc. (Québecor), Radio Advisory Board of Canada (RABC), Routcom Inc. (Routcom), SaskTel, Shaw Communications (Shaw), Silo Wireless Inc. (Silo), Société de Participation Financière Eidos Canada Inc. (Eidos), Tbaytel, TEC Canada, TELUS Communications Company (TELUS), The Regional

Municipality of Durham, The Regional Municipality of Halton, The Wisp Group and Wisp Internet Services Inc. (Wisp Group), Ultrafast Wireless, YourLink, Xplornet Communications Inc. (Xplornet), and ZTE Canada Inc. (ZTE).

#### **4. Renewal Process for 2300 MHz Licences**

6. The consultation sought comments on two proposed renewal options for 2300 MHz licences:
  1. Extend initial licence term for all licences (hereinafter referred to as “Option 1-Extend”):
    - by three years for each licence, or;
    - to a fixed date of December 2017.
  2. Make new licences available through a renewal process with 10-year terms for licences which are in compliance with all conditions of licence, including deployment (hereinafter referred to as “Option 2-Renew”).

#### **Summary of Comments**

##### **Comments from Licensees**

7. The majority of the licensees that commented were in favour of Option 1-Extend. Inukshuk, TELUS, Nextwave and YourLink noted that the continued lack of an equipment ecosystem in this band has made it difficult to deploy services and that a licence extension is warranted. TELUS stated that “development of a new AT&T driven mobile LTE ecosystem would presumably support deployment in Canada by a December 2017 deadline.” It also noted that this timeline is aggressive but achievable.

8. Chatham Internet Access was the only licensee that supported Option 2-Renew, stating that this option “provides increased certainty, transparency and predictability for licensee” and that any short-term extension would “penalize” those licensees that have deployed services and would like to gain access to additional spectrum.

##### **Comments from Other Respondents**

9. Netago, AireNet, Andrews Wireless, Genesis, GL Mobile, High Speed Crow, Routcom, Silo, Canadian Tower, MTS Allstream, ABC, CNOC, and Canwisp supported an extension for all licences. They submitted that there has been a lack of equipment for this band, and support extending the licence term to allow time to meet the deployment requirements. Québecor, SaskTel, Eastlink, ccRoute, Axia SuperNet, BLURR Wireless, Eidos, Xplornet, and the Government of Alberta were in support of Option 2-Renew. Both Eastlink and Québecor would like the Department to reclaim unused licences, and re-auction this spectrum with the intent of providing advanced mobile services. All of those supporting Option 2-Renew agreed that 10 years would be an appropriate term for new licences issued through the renewal process.

## Discussion

10. The 2300 MHz band is allocated for both fixed and mobile use; however, at the time of auction, it was expected that the predominant use would be for wireless broadband to homes. There was no equipment ecosystem at that time and it was expected that equipment would likely become available over the term of the licences. Today, the equipment ecosystem has yet to be developed. Consequently, there has been limited deployment in the band; only one licensee has implemented a system. That said, recent developments in the United States have resolved interference issues with adjacent Satellite Digital Audio Radio Service (SDARS) systems, which should facilitate the development of an equipment ecosystem for the band.

11. Licensees in the 2300 MHz band have an expectation of renewal, unless a breach of licence condition occurs (e.g. failure to meet the required level of service), a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises. For the 2300 MHz band, there is no fundamental reallocation required nor has an overriding policy need arisen. Therefore, a 10-year term for new licences issued through this renewal process is appropriate.

12. Industry Canada notes that it has already extended the *Implementation of Spectrum Usage*<sup>1</sup> requirement twice in order to provide licensees with more time to meet the deployment criteria. However, given the increasing demand for mobile spectrum, Industry Canada considers it timely to reinforce to all spectrum licensees the importance of deployment conditions.

13. Current spectrum licensees must demonstrate that their conditions of licence have been satisfied before the expiry of their current licence in order to be eligible for a new licence.

14. Therefore, only those licences that meet their licence conditions will be eligible for a new licence in the applicable licence area. The conditions that will apply to the new spectrum licences in this band are set out in Annex B. It is anticipated that many licences will not be eligible for a new licence through this renewal process and, as such, many will be returned to Industry Canada. Any returned licences will be assigned through a subsequent licensing process that will be the subject of a future consultation. Therefore, this decision will provide other interested parties with the opportunity to obtain access to this spectrum at a future date.

## Decision

**Where all conditions of licence for the current 2300 MHz licences have been met, licensees will be eligible to be issued a new 10-year term spectrum licence in the same applicable area through the renewal process. The conditions of licence are set out in Annex B.**

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<sup>1</sup> <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09557.html>

## 5. Renewal Process for 3500 MHz Licences

15. The consultation sought comments on two proposed renewal options for 3500 MHz licences:
1. Extend initial licence term for all licences (hereinafter referred to as “Option 1-Extend”):
    - by three years for each licence, or;
    - to a fixed date of December 2017.
  2. Make new licences available through a renewal process with 10-year terms for licences which are in compliance with all conditions of licence, including deployment (hereinafter referred to as “Option 2-Renew”).

### Summary of Comments

#### Comments from Licensees

16. Inukshuk, TELUS, Tbaytel, ABC, Cintek, and Cogeco supported Option 1-Extend, favouring a three-year extension for all licensees, citing a lack of equipment, as well as international uncertainty and technological uncertainty surrounding the band as justification. TELUS and ABC both commented that granting a short-term extension would deter licensees from deploying temporary and/or uneconomical fixed links just to meet deployment requirements and secure a long-term renewal. Specifically, ABC was concerned that uneconomical rollouts will “damage the competitive landscape” for local Internet service providers (ISPs).

17. Both Inukshuk and TELUS suggested changing the allocation of the band. Inukshuk would like the Department to launch a consultation regarding the band plan by early 2014, in order to add a mobile allocation before licensees deploy services. TELUS stated that after the extension, the entire band should expire, be returned to the Department on December 31, 2017, and be re-auctioned as a new mobile band (based on a possible future consultation). Its reasoning is that “FWA spectrum in Canada is not well synergized with any other market or ecosystem” and that the “transition of FWA spectrum to mobile broadband spectrum in Canada represents a fundamental reallocation to a new service.” It argued that there must be no windfall for current licensees, noting that TELUS itself holds 124 licences in the 3500 MHz band.

18. Chatham Internet Access, ccRoute, Netago, and Xplornet supported Option 2-Renew, arguing that fixed system equipment exists today that can be used to meet deployment requirements and offer services to Canadians. Chatham Internet Access added that this option “provides increased certainty, transparency and predictability for licensees,” rather than Option 1-Extend, which would “penalize those who have deployed and those who need more spectrum for network upgrades and expansions.” It further added that a lack of equipment is not a viable excuse and stated that plenty of equipment is currently available.

19. Xplornet proposed that the Department treat the urban and rural areas differently, stating that larger licensees are mainly interested in the urban spectrum and smaller Internet service providers need more access to rural spectrum. Netago also suggested separate licensing policies for more rural Tier 4 areas in order to “make spectrum available to those committed to provision of broadband services to rural/remote areas.”

### **Comments from Other Respondents**

20. The majority of non-licensee respondents supported the enforcement of the deployment requirements. Axia SuperNet, Eastlink, Québecor, SaskTel, Eidos, CNOC, Canwisp, Government of Alberta, Canadian Tower, AireNet, Andrews Wireless, Genesis, GL Mobile, High Speed Crow, Routcom, Oxford County, and Silo supported Option 2-Renew, stating that a lack of an equipment ecosystem is not a valid excuse given that equipment is available today. Some specifically noted that Industry Canada has certified many models of radio equipment in the band 3450-3650 MHz.

21. CRÉ, ET Group, Grey County, King Township, TEC Canada, The Regional Municipality of Durham, the Wisp Group and Ultrafast Wireless supported a shorter extension to December 2016, the enforcement of the deployment conditions and the return of unused licences at that time.

22. Eastlink and Québecor suggested that the Department reclaim unused licences, and re-auction this spectrum for advanced mobile services. Eastlink argued that incumbents would likely deploy LTE using the 700 MHz and 2500 MHz bands before the 2300 MHz and 3500 MHz bands.

23. Many non-licensee respondents expressed the importance of this spectrum to provide broadband Internet service in rural areas, and suggested splitting the spectrum for urban and rural areas.

24. King Township, Oxford County, TEC Canada, The Regional Municipality of Durham, Ultrafast Wireless and the Wisp Group suggested that splitting the urban and rural areas will make rural spectrum more affordable and that “adopting policies that will encourage holders of existing 3500 MHz spectrum licences to return to Industry Canada the rural areas of their licences that are not currently deployed so that Industry Canada can make those areas available to wireless Internet service providers that are willing to deploy in rural Canada.”

25. AireNet, Andrews Wireless, Genesis, GL Mobile, High Speed Crow, Routcom, Silo, Canadian Tower and Peace River Internet Society suggested separate licensing policies for more rural Tier 4 areas in order to “make spectrum available to those committed to provision of broadband services to rural/remote areas.”

26. Eastlink commented that this spectrum will be important for the delivery of advanced mobile services, but also acknowledged that “it is critical that regional service providers that have proven their commitment to rural deployment have an opportunity to access this valuable spectrum if the Department is committed to meeting the policy objectives of these bands.”

27. Québecor supported Option 2-Renew, but stressed that those licensees who are renewed should only be permitted to use these licences for continued fixed services, and not receive any windfall by being able to deploy advanced mobile services.

## Discussion

28. Licensees in the 3500 MHz band have an expectation of renewal, unless a breach of licence condition occurs (e.g. failure to meet the required level of service), a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises.
29. In Canada, the 3500 MHz band differs from the 2300 MHz band in that there has been a fixed equipment ecosystem available for licensees to deploy (e.g. WiMAX). However, there has been limited deployment to date. Licensees that have deployed services in the 3500 MHz band are generally providing broadband Internet services, predominantly in rural areas. Internationally, there are developments to allow mobile broadband services in the band, and so some Canadian licensees have stated they have not deployed, or only partially deployed, in the hope that Canada will also allocate the band for mobile broadband use.
30. In addition, Industry Canada's *Commercial Mobile Spectrum Outlook* document, released in March 2013, identified 3500 MHz as a source for commercial mobile spectrum, to provide additional capacity in order to meet consumer demand, particularly in urban areas. The introduction of commercial mobile services in this band would be considered a fundamental reallocation and, therefore, impacts the decision on the length of licence terms for renewals. Furthermore, a fundamental reallocation would require that spectrum be returned (i.e. not renewed).
31. Comments from the consultation highlighted two competing demands: demand for mobile broadband services in urban areas and demand for fixed wireless broadband services in rural areas.
32. The characteristics of the 3500 MHz spectrum are such that it cannot cover a large area without significant infrastructure. Therefore, although it is well suited to meet the increasing demand for mobile use in urban areas, it is less economical to use for mobile services in rural areas. In contrast, the spectrum is well suited to meet the needs for fixed services in rural areas. Consequently, the Department is currently of the view that a future consultation would address the fundamental reallocation of the band to mobile services in urban areas, while permitting continued fixed operation in rural areas.
33. Due to the uncertainty in the band regarding a potential mobile allocation and the need for further consultation, the Department will not be issuing any new long-term licences in the band. With respect to which licences should be renewed, the Department notes that it has already extended the *Implementation of Spectrum Usage* requirement twice in order to provide licensees more time to meet the deployment criteria. Therefore, Industry Canada considers that it is appropriate that licence conditions on renewal be applied in order to ensure the ongoing efficient use of the spectrum.
34. Therefore, where all conditions of licence have been satisfied, licensees will be eligible for a new one-year licence, which will be eligible for renewal for further one-year terms, until a decision on the potential mobile allocation has been made. Eligibility for continued renewal will be subject to meeting conditions of licence, the potential reallocation of the band and an overriding policy need. This decision allows for currently deployed operations to continue, while permitting time for a public consultation on the future of use this band.



35. As noted in the consultation,<sup>2</sup> licensees in the 3500 MHz band are hereby given advance notification that changes to the existing allocation and band plan may be considered in the next two to three years. As well, licensees are hereby given notice that, in the event of a fundamental reallocation, Industry Canada would require that spectrum be returned (i.e. not renewed).

36. Current spectrum licensees must demonstrate that their conditions of licence have been satisfied before the expiry of their licence in order to be eligible for a new licence.

### Decision

**Where all conditions of licence for the current 3500 MHz licences have been met, licensees will be eligible to be issued a new one-year term spectrum licence through the renewal process. These licences will be eligible for renewal as indicated in the conditions of licence. A consultation will be held on the potential future use of the band, which may result in a reallocation.**

### Discussion Concerning Future Consultation

37. As part of the future consultation, the Department is considering classifying each of the current Tier 4 licence areas as Large Urban, Medium Urban or Rural, based on Statistics Canada's definitions for population centres.<sup>3</sup> Annex C provides a complete listing of all the Tier 4 areas and their potential classification.

38. The Department anticipates that the demand for mobile services will be very high in the Large Urban areas and, therefore, existing operations in these areas will likely be subject to a transition policy. It is also anticipated that there may be limited demand for mobile services in Rural areas and, therefore, these licences will likely continue to provide fixed services for a long time. It remains unclear as to what the demand for mobile services may be in the Medium Urban areas. As previously stated, the classification of tiers, and the corresponding anticipated level of demand for mobile services, will be subject to a future consultation.

39. The Department anticipates treating tiers classified as "Urban" and "Rural" differently, such that fixed services could continue in Rural areas, whereas in Urban areas, existing fixed licences would be subject to transition out of the band. Such a transition would only apply if the existing fixed services interfere with the mobile operations in the vicinity. Although some existing fixed operations are near Urban areas, the vast majority are not. As a result, the Department expects that the majority of existing systems in tiers classified as "Urban" would not require transition out of the band for many years.

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<sup>2</sup> *Consultation on Renewal Process for 2300 MHz and 3500 MHz Licences*, <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10470.html>

<sup>3</sup> Statistics Canada, 2011 Census Dictionary, <http://www12.statcan.gc.ca/census-recensement/2011/ref/dict/geo049a-eng.cfm>

## 6. Proposed Condition of Licence and Alternative Deployment Metric for the 2300 MHz and 3500 MHz Bands

40. When the 2300 MHz and 3500 MHz bands were first designated, they were expected to be used primarily for the provision of broadband wireless access (BWA). Thus, the deployment requirements are currently designed for access technology, where coverage to population is an appropriate metric to ensure that the spectrum is being used.

41. As noted in the consultation, some licensees have been deploying fixed links that do not service an end user directly (e.g. point-to-point microwave deployments). This type of use is permitted in these bands, but does not currently count towards the deployment requirement.

42. Therefore, for point-to-point or point-to-multipoint deployments (not servicing an end user directly), the Department proposed an alternate deployment requirement of 15 links per million population per Tier 4 area for both the 2300 MHz and the 3500 MHz bands. The Department proposed that this would be deemed a level of usage acceptable for the purposes of demonstrating compliance with this condition of licence. The Department also proposed amendments to the current condition of licence on deployment, in order to simplify the language and clarify that Industry Canada will use the *Tier 4 Deployment Requirements for 2300 MHz and 3500 MHz Licences* (refer to Annex A), and to clarify that the deadline was extended to the end of the 10-year licence term. The Department advised licensees regarding these requirements, in a letter in March 2012,<sup>4</sup> which are considered to be the existing deployment requirements.

### Summary of Comments

#### Comments from Licensees

43. Inukshuk, ABC, Cintek, and Cogeco supported the proposed alternative requirement. Xplornet commented that “the ability to meet the requirements for spectrum use by simply deploying fixed links (only one link in many cases) is poor public policy and leaves spectrum being inefficiently used, if at all, for at least 10 years.” TELUS stated that this would not be an effective use of this spectrum, and that it is expected that there will be far more important use in near future. It added that other bands are more suitable for backhaul. There were few comments on the proposed amendment to the condition of licence.

#### Comments from Other Respondents

44. Axia and Québecor supported the proposed alternative requirement, with certain conditions. Axia wanted the required number of links to be increased and Québecor wanted the addition of a stipulation that current licensees issued new licences through this process would not be permitted to deploy mobile services in the future. However, the vast majority of respondents opposed the proposed alternative requirement, arguing that these bands were intended to provide broadband Internet access and that licensees have had sufficient time to deploy.

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<sup>4</sup> [http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h\\_sf05472.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf05472.html)

## Discussion

45. The current policy permits the use of fixed links without servicing an end user. However, given that the majority of respondents were opposed to the alternative metric, including those that have indicated they are using the spectrum for this very purpose, Industry Canada agrees that the metric by which to measure deployment should remain unchanged. Therefore, although this type of deployment is permitted under the current policy, it will not count towards the deployment requirement. As noted in the licensing framework<sup>5</sup> under which these licences were originally issued, “The Department is of the view that the spectrum is a public resource which should be used in ways that serve the public interest.” The deployment of services to end users will be considered by the Department in assessing the minimum population coverage in each licence area as outlined in Annex A.

## Decision

**Industry Canada will amend the current condition of licence using the proposed wording in the consultation, to reflect the adoption of the existing deployment requirements in Annex A, as well as the extension of the deadline to the end of the 10-year licence term. Deployment of links without servicing an end user will not count towards the deployment requirement.**

## 7. Fees and Service Standards

46. The *Framework for Spectrum Auctions in Canada*<sup>6</sup> (hereinafter referred to as the Auction Framework) states: “For licences issued through a renewal process, licence fees that reflect some measure of market value will apply.” A separate consultation will be launched to determine the spectrum licence fees that will apply to new licences issued through this renewal process.

## 8. Conditions of Licence for new 2300 MHz and 3500 MHz Licences

47. This section discusses the conditions of licence that will apply to new 2300 MHz and 3500 MHz licences issued through this renewal process. The conditions, as they will appear on new licences, are attached as Annex B.

## Licence Term

48. This condition has been updated as per decisions announced in the Auction Framework and as set out in sections 4 and 5 of this document.

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<sup>5</sup> Refer to Section 6.13 of the *Policy and Licensing Procedures for the Auction of Spectrum Licences in the 2300 and 3500 MHz Frequency Bands*, available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf06013.html>.

<sup>6</sup> Section 3.5 Licence Term, *Framework for Spectrum Auctions in Canada*, <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01626.html#section35>

**Licence Transferability and Divisibility**

49. This condition has been updated as per Industry Canada's *Framework Relating to Transfers, Divisions and Subordinate Licensing of Spectrum Licences for Commercial Mobile Spectrum*.<sup>7</sup> The updated wording will reflect the fact that the 2300 MHz band is commercial mobile spectrum, whereas the 3500 MHz band is not considered commercial mobile spectrum as the latter band is allocated for fixed use only.

**Spectrum Aggregation Limit**

50. This condition is no longer applicable.

**Eligibility**

51. This condition has been updated as per amendments made to the *Telecommunications Act*<sup>8</sup> on June 29, 2012. To ensure consistency, minor changes were made to the wording to remove the reference to "radiocommunication carriers."

**Displacement of Incumbents**

52. There will be no changes to this condition of licence.

**Radio Station Installations**

53. The Department has updated the wording of this condition to refer to CPC-2-0-03, *Radiocommunication and Broadcasting Antenna Systems*.

**Provision of Technical Information**

54. The Department has updated the wording of this condition to refer to CPC-2-1-23, *Licensing Procedure for Spectrum Licences for Terrestrial Services*.

**Compliance with Legislation, Regulations and Other Obligations**

55. Licensees are required to abide by the requirements set out for use of the radio frequency spectrum in general and for the specific frequency band being licensed. These requirements are fundamental, and in some cases, they are legislative requirements.

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<sup>7</sup> *Framework Relating to Transfers, Divisions and Subordinate Licensing of Spectrum Licences for Commercial Mobile Spectrum*, <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10653.html>

<sup>8</sup> *Telecommunications Act*, <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/>

56. Upon further review of this condition of licence, Industry Canada is of the view that the removal of the reference to the International Telecommunication Union's (ITU) *Radio Regulations* from the original wording would be clearer. Although conformity with respect to the ITU's *Radio Regulations* and related international agreements continues to apply to Canada, the relevant requirements for licensees are included in the *Canadian Table of Frequency Allocations*, the *Radiocommunication Regulations*, policies and conditions of licence. The Canadian Table and the associated general information will need to be revised from time to time. Such revisions occur when changes to the ITU's Table are made as a result of World Radiocommunication Conferences or particular Canadian radio service requirements. The *Canadian Table of Frequency Allocations* reflects international changes while taking into account Canadian requirements to ensure that government, commercial and private users have full flexibility to develop new radio applications.

#### **Technical Considerations, and International and Domestic Coordination**

57. The Department has combined the Technical Considerations and International and Domestic Coordination conditions into one condition.

#### **Lawful Intercept**

58. The Department has updated the wording for this condition to bring the wording in line with current technologies, namely by updating references to "circuit-switched voice telephony" technology. The condition of licence on lawful intercept was first introduced in 1996 for Personal Communications Services (PCS) spectrum licences. Since then, this condition has been applied to most spectrum licences where the licensee was a radiocommunication carrier, as this is the only class of licensee that carries public traffic to and from the public networks (telephone and Internet).

59. The rationale for removing the reference to a specific technology was to ensure that the requirement would remain meaningful in a Long Term Evolution (LTE) network environment, which uses packet-switched technology instead of circuit-switched technology. The intent was not to expand the requirement to additional services.

60. Given the above, Industry Canada notes that removing the reference to "circuit-switched" while maintaining the reference to "voice telephony systems" would serve the original intent while effectively maintaining the scope of the condition, similar to that of other services, namely the requirement to intercept voice communications.

61. Furthermore, the term "radiocommunication carrier" is being replaced with "telecommunication common carrier" to ensure consistency with the *Telecommunications Act* and related regulations, noting that both terms have similar definitions.

62. The licensee may request the Minister of Industry to forbear from enforcing certain assistance capability requirements for a limited period of time.

#### **Research and Development**

63. This condition of licence will apply to 2300 MHz licences, but may be amended during the licence term.

64. This condition will not apply to 3500 MHz licences issued through this renewal process given the one-year terms and the future consultation on the band.

**Implementation of Spectrum Usage**

65. This condition will apply to 2300 MHz and 3500 MHz licences issued through this renewal process. Licensees will be required to maintain deployment levels indicated in Annex A.

**Mandatory Antenna Tower and Site Sharing**

66. This condition continues to apply. It now appears in the main body of the conditions of licence instead of as an appendix, as on previous licences.

**Annual Reporting**

67. The Annual Reporting condition of licence will continue to apply to 2300 MHz and 3500 MHz licences.

**9. Next Steps**

68. The Department will launch a further consultation regarding a possible addition of mobile allocation to the 3500 MHz band. Comments will be sought on topics including, but not limited to, a possible new band plan and corresponding transition policy, as well as the establishment of a different classification of existing tier areas to support the deployment of different types of services.

69. Licences that are not renewed will be reassigned through a subsequent licensing process. This subsequent licensing process will be the subject of a future consultation.

70. The Department will also launch a consultation on fees applicable to new licences issued through the renewal process in both bands.

**Annex A — Tier 4 Deployment Requirements for 2300 MHz and 3500 MHz Licences**

1. These deployment requirements take into consideration the population size of the large and medium population centres within each tier, as well as the population density. All Tier 4 areas with a population density of 50 people/km<sup>2</sup> or above have a coverage requirement of 50%.
2. Licensees must demonstrate compliance with the listed minimum population coverage for their licence area by the end of their licence term.

<b>Tier 4</b>	<b>Service Area Name</b>	<b>Population</b>	<b>Minimum Population Coverage</b>
4-001	St. John's	223,381	50%
4-002	Placentia	19,464	20%
4-003	Gander/Grand Falls/Windsor	159,526	10%
4-004	Corner Brook/Stephenville	82,694	30%
4-005	Labrador	28,217	30%
4-006	Charlottetown	86,793	30%
4-007	Summerside	48,501	30%
4-008	Yarmouth	62,591	40%
4-009	Bridgewater/Kentville	140,124	40%
4-010	Halifax	389,094	50%
4-011	Truro	56,095	40%
4-012	Amherst	36,091	40%
4-013	Antigonish/New Glasgow	76,898	40%
4-014	Sydney	147,044	30%
4-015	Saint John	140,331	50%
4-016	St. Stephen	27,012	15%
4-017	Fredericton	152,323	30%
4-018	Moncton	151,240	30%
4-019	Miramichi/Bathurst	169,181	30%
4-020	Grand Falls	28,528	20%
4-021	Edmundston	28,374	30%
4-022	Campbellton	32,006	20%
4-023	Matane	118,114	15%
4-024	Mont-Joli	41,770	15%
4-025	Rimouski	52,049	15%
4-026	Rivière-du-Loup	86,340	15%
4-027	La Malbaie	29,403	50%
4-028	Chicoutimi-Jonquière	217,187	40%
4-029	Montmagny	59,520	20%
4-030	Québec	780,745	50%
4-031	Sainte-Marie	48,205	20%
4-032	Saint-Georges	67,337	30%
4-033	Lac Mégantic	24,923	30%
4-034	Thetford Mines	42,871	30%
4-035	Plessisville	21,894	25%
4-036	La Tuque	16,300	30%

Tier 4	Service Area Name	Population	Minimum Population Coverage
4-037	Trois-Rivières	252,368	30%
4-038	Louiseville	22,226	30%
4-039	Asbestos	30,204	20%
4-040	Victoriaville	49,457	50%
4-041	Coaticook	13,362	30%
4-042	Sherbrooke	216,182	30%
4-043	Windsor	16,443	30%
4-044	Drummondville	96,533	50%
4-045	Cowansville	27,044	30%
4-046	Farnham	27,861	25%
4-047	Granby	86,541	50%
4-048	St-Hyacinthe	83,957	50%
4-049	Sorel	55,994	50%
4-050	Joliette	135,893	30%
4-051	Montréal	3,756,709	50%
4-052	Sainte-Agathe-des-Monts	61,197	10%
4-053	Hawkesbury	62,398	30%
4-054	Mont-Laurier/Maniwaki	45,928	10%
4-055	Ottawa	1,202,839	50%
4-056	Pembroke	77,757	15%
4-057	Arnprior/Renfrew	30,397	15%
4-058	Rouyn-Noranda	40,512	30%
4-059	Notre-Dame-du-Nord	17,427	15%
4-060	La Sarre	20,272	30%
4-061	Amos	24,982	30%
4-062	Val D'Or	43,487	30%
4-063	Roberval/Saint-Félicien	61,573	40%
4-064	Baie-Comeau	48,423	40%
4-065	Port-Cartier/Sept-Îles	47,407	40%
4-066	Chibougamau	40,400	20%
4-067	Cornwall	65,921	50%
4-068	Brockville	69,968	30%
4-069	Gananoque	12,901	40%
4-070	Kingston	162,711	50%
4-071	Napanee	39,509	40%
4-072	Belleville	145,085	40%
4-073	Cobourg	59,699	30%
4-074	Peterborough	151,081	50%
4-075	Lindsay	41,911	30%
4-076	Minden	17,819	30%
4-077	Toronto	5,635,828	50%
4-078	Alliston	99,207	30%
4-079	Guelph/Kitchener	580,963	50%
4-080	Fergus	26,072	50%
4-081	Kincardine	173,663	15%



<b>Tier 4</b>	<b>Service Area Name</b>	<b>Population</b>	<b>Minimum Population Coverage</b>
4-082	Listowel/Goderich	84,491	15%
4-083	Fort Erie	28,451	50%
4-084	Niagara-St. Catharines	326,520	50%
4-085	Haldimand/Dunnville	35,936	50%
4-086	London/Woodstock/St. Thomas	607,564	50%
4-087	Brantford	122,156	50%
4-088	Stratford	49,496	50%
4-089	Chatham	74,209	50%
4-090	Windsor/Leamington	376,213	50%
4-091	Wallaceburg	32,820	30%
4-092	Sarnia	124,825	50%
4-093	Strathroy	41,914	50%
4-094	Barrie	274,354	50%
4-095	Midland	44,114	50%
4-096	Gravenhurst/Bracebridge	54,503	30%
4-097	North Bay	102,831	40%
4-098	Parry Sound	19,422	30%
4-099	Elliot Lake	31,261	35%
4-100	Sudbury	172,605	50%
4-101	Kirkland Lake	34,740	25%
4-102	Timmins	43,906	30%
4-103	Kapuskasing	41,662	25%
4-104	Kenora/Sioux Lookout	61,920	40%
4-105	Iron Bridge	22,567	25%
4-106	Sault Ste. Marie	81,654	50%
4-107	Marathon	29,468	30%
4-108	Thunder Bay	121,372	50%
4-109	Fort Frances	22,072	35%
4-110	Steinbach	45,879	30%
4-111	Winnipeg	722,206	50%
4-112	Lac du Bonnet	53,537	15%
4-113	Morden/Winkler	38,697	30%
4-114	Brandon	92,736	20%
4-115	Portage la Prairie	20,073	50%
4-116	Dauphin	79,729	10%
4-117	Creighton/Flin Flon	21,360	25%
4-118	Thompson	44,066	30%
4-119	Estevan	44,562	20%
4-120	Weyburn	21,658	40%
4-121	Moose Jaw	56,844	25%
4-122	Swift Current	47,453	25%
4-123	Yorkton	66,760	20%
4-124	Regina	216,558	40%
4-125	Saskatoon	237,314	40%
4-126	Watrous	29,426	15%

Tier 4	Service Area Name	Population	Minimum Population Coverage
4-127	Battleford	91,099	15%
4-128	Prince Albert	130,757	25%
4-129	Lloydminster	30,719	50%
4-130	Northern Saskatchewan	33,286	15%
4-131	Medicine Hat/Brooks	89,056	30%
4-132	Lethbridge	156,171	40%
4-133	Stettler/Oyen/Wainwright	52,089	20%
4-134	High River	58,713	40%
4-135	Strathmore	38,332	40%
4-136	Calgary	994,628	50%
4-137	Red Deer	151,548	25%
4-138	Wetaskiwin/Ponoka	46,931	25%
4-139	Camrose	34,573	30%
4-140	Vegreville	14,407	35%
4-141	Edmonton	943,011	50%
4-142	Edson/Hinton	45,052	30%
4-143	Bonnyville	73,729	25%
4-144	Whitecourt	27,135	50%
4-145	Barrhead	22,025	50%
4-146	Fort McMurray	43,046	50%
4-147	Peace River	82,673	20%
4-148	Grande Prairie	75,598	25%
4-149	East Kootenay	56,284	15%
4-150	West Kootenay	76,630	15%
4-151	Kelowna	299,947	35%
4-152	Vancouver	2,201,446	50%
4-153	Hope	21,930	25%
4-154	Victoria	389,247	50%
4-155	Nanaimo	165,741	40%
4-156	Courtenay	106,015	40%
4-157	Powell River	26,889	45%
4-158	Squamish/Whistler	59,781	35%
4-159	Merritt	15,362	40%
4-160	Kamloops	92,024	40%
4-161	Ashcroft	16,503	15%
4-162	Salmon Arm	46,184	45%
4-163	Golden	7,154	40%
4-164	Williams Lake	41,149	25%
4-165	Quesnel/Red Bluff	24,613	40%
4-166	Skeena	63,902	40%
4-167	Prince George	95,334	40%
4-168	Smithers	40,770	20%
4-169	Dawson Creek	60,717	30%
4-170	Yukon	28,674	20%
4-171	Nunavut	26,745	20%

<b>Tier 4</b>	<b>Service Area Name</b>	<b>Population</b>	<b>Minimum Population Coverage</b>
4-172	Northwest Territories	37,288	20%

**Annex B — Conditions of Licence for new 2300 MHz and 3500 MHz Licences**

1. The following conditions will apply to all 2300 MHz and 3500 MHz licences issued through this renewal process. It should be noted that the licences are subject to the relevant provisions in the *Radiocommunication Act* and the *Radiocommunication Regulations*, as amended from time to time. For example, the Minister continues to have the power to amend the terms and conditions of spectrum licences (paragraph 5(1)(b) of the *Radiocommunication Act*). The Minister may do so for reasons including furtherance of the policy objectives set out in section 7 of the *Telecommunications Act* and the policy objectives related to this band as set out in SMSE-002-12. Such action would normally only be undertaken after consultation.

2. Licensees must be fully aware of their obligations with respect to licence terms and conditions. Industry Canada will monitor compliance and take any necessary action to ensure compliance and to enforce the provisions of the *Radiocommunication Act* and the *Radiocommunication Regulations*.

**1. Licence Term (2300 MHz only)**

3. The term of this licence is 10 years. At the end of this term, the licensee will have a high expectation that a new licence will be issued for a subsequent term through a renewal process unless a breach of licence condition has occurred, a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises.

4. The process for issuing licences after this term and any issues relating to renewal, including the terms and conditions of the new licence, will be determined by the Minister of Industry following a public consultation.

**2. Licence Term (3500 MHz only)**

5. The term of this licence is one year. At the end of this term, the licensee will have a high expectation that a new licence will be issued for a subsequent one-year term unless a breach of licence condition has occurred, a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises. Licensees are hereby given advance notification that changes to the existing allocation and band plan may be considered as discussed in DGSO-004-13, *Decisions Concerning the Renewal of 2300 MHz and 3500 MHz Licences*, which may result in a fundamental reallocation.

**3. Licence Transferability and Divisibility (2300 MHz Only)**

6. This licence is transferable in whole or in part (divisibility), in both bandwidth and geographic dimensions, subject to Industry Canada's approval. A Subordinate Licence may also be issued in regard to this licence, subject to Industry Canada's approval.

7. The licensee must make the Transfer Request in writing to Industry Canada. The Transfer Request will be treated as set out in Client Procedures Circular CPC-2-1-23, *Licensing Procedure for Spectrum Licences for Terrestrial Services*, as amended from time to time.

8. The licensee must apply in writing to Industry Canada for approval prior to implementing any Deemed Transfer, which will be treated as set out in CPC-2-1-23. The implementation of a Deemed

Transfer without the prior approval of Industry Canada will be considered a breach of this condition of licence.

9. Should the licensee enter into any Agreement that provides for a Prospective Transfer with another holder of a Licence for commercial mobile spectrum (including any Affiliate, agent or representative of the other licence holder), it must apply in writing to Industry Canada for review of the Prospective Transfer within 15 days of entering into the Agreement, which will be treated as set out in CPC-2-1-23. Should Industry Canada issue a decision indicating that the Prospective Transfer is not approved, it will be a breach of this condition of licence for a licensee to remain in an Agreement that provides for the Prospective Transfer for a period of more than 90 days from the date of the decision.

10. In all cases, the licensee must follow the procedures as outlined in CPC-2-1-23.

11. All capitalized terms have the meaning ascribed to them in CPC-2-1-23.

#### **4. Licence Transferability and Divisibility (3500 MHz Only)**

12. This licence is transferable in whole or in part (divisibility), in both bandwidth and geographic dimensions, subject to Industry Canada's approval. A Subordinate Licence may also be issued in regard to this licence, subject to Industry Canada's approval.

13. In all cases, the licensee must follow the procedures as outlined in CPC-2-1-23.

14. All capitalized terms have the meaning ascribed to them in CPC-2-1-23.

#### **5. Eligibility**

15. The licensee must comply on an ongoing basis with the applicable eligibility criteria of the *Radiocommunication Regulations*. The licensee must notify the Minister of Industry of any change that would have a material effect on its eligibility. Such notification must be made in advance for any proposed transactions within its knowledge. Where information is required related to reviewing eligibility, licensees should refer to Client Procedures Circular CPC-2-0-15, *Canadian Ownership and Control*, as amended from time to time.

#### **6. Displacement of Incumbents**

16. The licensee must comply with the transition policy outlined in Appendix 3 of the *Policy and Licensing Procedures for the Auction of Spectrum Licences in the 2300 MHz and 3500 MHz Frequency Bands* (Revised July 2004).

#### **7. Radio Station Installations**

17. The licensee must comply with Client Procedures Circular CPC-2-0-03, *Radiocommunication and Broadcasting Antenna Systems*, as amended from time to time.

## 8. Provision of Technical Information

18. When Industry Canada requests technical information on a particular station or network, the licensee must provide the information in accordance with the definitions, criteria, frequency and timelines specified in the request. For further information, refer to Client Procedures Circular CPC-2-1-23, *Licensing Procedure for Spectrum Licences for Terrestrial Services*, as amended from time to time.

## 9. Compliance with Legislation, Regulations and Other Obligations

19. The licensee is subject to, and must comply with, the *Radiocommunication Act* and the *Radiocommunication Regulations*, as amended from time to time. The licensee must use the assigned spectrum in accordance with the *Canadian Table of Frequency Allocations* and the spectrum policies applicable to this band, as amended from time to time. The licence is issued on condition that all representations made in relation to obtaining this licence are all true and complete in every respect.

## 10. Technical Considerations, and International and Domestic Coordination

20. The licensee must comply on an ongoing basis with the technical aspects of the appropriate Radio Standards Specifications (RSS) and Standard Radio System Plans (SRSP), as amended from time to time. Where applicable, the licensee must use its best efforts to enter into mutually acceptable agreements with other parties for facilitating the reasonable and timely development of their respective systems, and to coordinate with other licensed users in Canada and internationally.

21. The licensee must comply with the obligations arising from current and future frequency coordination agreements established between Canada and other countries and shall be required to provide information or take actions to implement these obligations as indicated in the applicable SRSP. Although frequency assignments are not subject to site licensing, the licensee may be required through the appropriate SRSP to furnish all necessary technical data for each relevant site.

## 11. Lawful Intercept

22. The licensee operating as telecommunication common carrier using the spectrum for voice telephony systems must, from the inception of service, provide for and maintain lawful interception capabilities as authorized by law. The requirements for lawful interception capabilities are provided in the *Solicitor General's Enforcement Standards for Lawful Interception of Telecommunications* (Rev. Nov. 95). These standards may be amended from time to time.

23. The licensee may request the Minister of Industry to forbear from enforcing certain assistance capability requirements for a limited period of time. The Minister, following consultation with Public Safety Canada, may exercise the power to forbear from enforcing a requirement or requirements where, in the opinion of the Minister, the requirement is not reasonably achievable. Requests for forbearance must include specific details and dates indicating when compliance to the requirement can be expected.

## 12. Research and Development (2300 MHz Carriers Only)

24. Those licensees operating as telecommunication common carriers must invest, as a minimum, 2 percent of its adjusted gross revenues resulting from its operations in this spectrum, averaged over the term of the licence, in eligible research and development activities related to telecommunications. Eligible research and development activities are those which meet the definition of scientific research and experimental development adopted in the *Income Tax Act*. Adjusted gross revenues are defined as total service revenues, less inter-carrier payments, bad debts, third party commissions, and provincial and goods and services taxes collected. Businesses with less than \$5 million in annual gross operating revenues are exempt from research and development expenditure requirements, except where they have affiliations with licensees that hold other licences with the research and development condition of licence and where the total annual gross revenues of the affiliated licensees are greater than \$5 million. To facilitate compliance with this condition of licence, the licensee should consult Industry Canada's GL-03, *Guidelines for Compliance with the Radio Authorization Condition of Licence Relating to Research and Development*.

## 13. Implementation of Spectrum Usage

25. Licensees must maintain coverage at the levels indicated in Annex A of DGSO-004-13, *Decisions Concerning the Renewal of 2300 MHz and 3500 MHz Licences*.

## 14. Mandatory Antenna Tower and Site Sharing

26. The licensee must comply with the mandatory antenna tower and site sharing requirements set out in 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*, as amended from time to time.

## 15. Annual Reporting

27. The licensee must submit an annual report for each year of the licence term, which includes the following information:

- a statement indicating continued compliance with all conditions of licence;
- an update on the implementation and spectrum usage within the area covered by the licence;
- existing audited financial statements with an accompanying auditor's report;
- a report of the research and development expenditures as set out in these conditions of licence. Industry Canada may request an audited statement of research and development expenditures with an accompanying auditor's report at its discretion (2300 MHz carriers only);
- supporting financial statements where licensees are claiming an exemption based on an annual gross revenue of less than \$5 million (2300 MHz carriers only);
- a copy of any existing corporate annual report for the licensee's fiscal year with respect to the authorization; and
- other information related to the licence as specified in any notice updating the reporting requirements as issued by Industry Canada.

28. All reports and statements are to be certified by an officer of the company and submitted, in writing, within 120 days of the licensee's fiscal year-end. Confidential information provided will be treated in accordance with subsection 20(1) of the Access to Information Act.

Reports are to be submitted to Industry Canada at the following address:

Manager, Emerging Networks  
Spectrum Management Operations Branch  
Industry Canada  
235 Queen Street  
Ottawa, ON K1A 0H5



**Annex C — Potential Tier 4 Classifications for 3500 MHz Licences**

1. Based on Statistics Canada's definitions for population centres (see Statistics Canada, 2011 Census Dictionary, <http://www12.statcan.gc.ca/census-recensement/2011/ref/dict/geo049a-eng.cfm>). Tier 4 service areas that have a large population centre would be classified as Large Urban tiers. Tier 4 areas that do not have a large population centre, but have a medium population centre, would be classified as Medium Urban tiers. All other tiers would be considered Rural tiers.

<b>Tier</b>	<b>Service Area Name</b>	<b>Classification</b>
4-001	St. John's	Large Urban
4-002	Placentia	Rural
4-003	Gander/Grand Falls/Windsor	Rural
4-004	Corner Brook/Stephenville	Rural
4-005	Labrador	Rural
4-006	Charlottetown	Medium Urban
4-007	Summerside	Rural
4-008	Yarmouth	Rural
4-009	Bridgewater/Kentville	Rural
4-010	Halifax	Large Urban
4-011	Truro	Rural
4-012	Amherst	Rural
4-013	Antigonish/New Glasgow	Rural
4-014	Sydney	Medium Urban
4-015	Saint John	Medium Urban
4-016	St. Stephen	Rural
4-017	Fredericton	Medium Urban
4-018	Moncton	Large Urban
4-019	Miramichi/Bathurst	Rural
4-020	Grand Falls	Rural
4-021	Edmundston	Rural
4-022	Campbellton	Rural
4-023	Matane	Rural
4-024	Mont-Joli	Rural
4-025	Rimouski	Medium Urban
4-026	Rivière-du-Loup	Rural
4-027	La Malbaie	Rural
4-028	Chicoutimi-Jonquière	Large Urban
4-029	Montmagny	Rural
4-030	Québec	Large Urban
4-031	Sainte-Marie	Rural
4-032	Saint-Georges	Rural
4-033	Lac-Mégantic	Rural
4-034	Thetford Mines	Rural
4-035	Plessisville	Rural
4-036	La Tuque	Rural
4-037	Trois-Rivières	Large Urban

<b>Tier</b>	<b>Service Area Name</b>	<b>Classification</b>
4-038	Louiseville	Rural
4-039	Asbestos	Rural
4-040	Victoriaville	Medium Urban
4-041	Coaticook	Rural
4-042	Sherbrooke	Large Urban
4-043	Windsor	Rural
4-044	Drummondville	Medium Urban
4-045	Cowansville	Rural
4-046	Farnham	Rural
4-047	Granby	Medium Urban
4-048	St-Hyacinthe	Medium Urban
4-049	Sorel	Medium Urban
4-050	Joliette	Medium Urban
4-051	Montréal	Large Urban
4-052	Sainte-Agathe-des-Monts	Rural
4-053	Hawkesbury	Rural
4-054	Mont-Laurier/Maniwaki	Rural
4-055	Ottawa	Large Urban
4-056	Pembroke	Rural
4-057	Arnrior/Renfrew	Rural
4-058	Rouyn-Noranda	Rural
4-059	Notre-Dame-du-Nord	Rural
4-060	La Sarre	Rural
4-061	Amos	Rural
4-062	Val-d'Or	Rural
4-063	Roberval/Saint-Félicien	Rural
4-064	Baie-Comeau	Rural
4-065	Port-Cartier/Sept-Îles	Rural
4-066	Chibougamau	Rural
4-067	Cornwall	Medium Urban
4-068	Brockville	Rural
4-069	Gananoque	Rural
4-070	Kingston	Large Urban
4-071	Napanee	Rural
4-072	Belleville	Medium Urban
4-073	Cobourg	Rural
4-074	Peterborough	Medium Urban
4-075	Lindsay	Rural
4-076	Minden	Rural
4-077	Toronto	Large Urban
4-078	Alliston	Medium Urban
4-079	Guelph/Kitchener	Large Urban
4-080	Fergus	Rural
4-081	Kincardine	Rural
4-082	Listowel/Goderich	Rural

<b>Tier</b>	<b>Service Area Name</b>	<b>Classification</b>
4-083	Fort Erie	Rural
4-084	Niagara-St. Catharines	Large Urban
4-085	Haldimand/Dunnville	Rural
4-086	London/Woodstock/St. Thomas	Large Urban
4-087	Brantford	Medium Urban
4-088	Stratford	Medium Urban
4-089	Chatham	Medium Urban
4-090	Windsor/Leamington	Large Urban
4-091	Wallaceburg	Rural
4-092	Sarnia	Medium Urban
4-093	Strathroy	Rural
4-094	Barrie	Large Urban
4-095	Midland	Medium Urban
4-096	Gravenhurst/Bracebridge	Rural
4-097	North Bay	Medium Urban
4-098	Parry Sound	Rural
4-099	Elliot Lake	Rural
4-100	Sudbury	Large Urban
4-101	Kirkland Lake	Rural
4-102	Timmins	Medium Urban
4-103	Kapuskasing	Rural
4-104	Kenora/Sioux Lookout	Rural
4-105	Iron Bridge	Rural
4-106	Sault Ste. Marie	Medium Urban
4-107	Marathon	Rural
4-108	Thunder Bay	Large Urban
4-109	Fort Frances	Rural
4-110	Steinbach	Rural
4-111	Winnipeg	Large Urban
4-112	Lac du Bonnet	Rural
4-113	Morden/Winkler	Rural
4-114	Brandon	Medium Urban
4-115	Portage la Prairie	Rural
4-116	Dauphin	Rural
4-117	Creighton/Flin Flon	Rural
4-118	Thompson	Rural
4-119	Estevan	Rural
4-120	Weyburn	Rural
4-121	Moose Jaw	Medium Urban
4-122	Swift Current	Rural
4-123	Yorkton	Rural
4-124	Regina	Large Urban
4-125	Saskatoon	Large Urban
4-126	Watrous	Rural
4-127	Battleford	Rural

<b>Tier</b>	<b>Service Area Name</b>	<b>Classification</b>
4-128	Prince Albert	Medium Urban
4-129	Lloydminster	Rural
4-130	Northern Saskatchewan	Rural
4-131	Medicine Hat/Brooks	Medium Urban
4-132	Lethbridge	Medium Urban
4-133	Stettler/Oyen/Wainwright	Rural
4-134	High River	Rural
4-135	Strathmore	Rural
4-136	Calgary	Large Urban
4-137	Red Deer	Medium Urban
4-138	Wetaskiwin/Ponoka	Rural
4-139	Camrose	Rural
4-140	Vegreville	Rural
4-141	Edmonton	Large Urban
4-142	Edson/Hinton	Rural
4-143	Bonnyville	Rural
4-144	Whitecourt	Rural
4-145	Barrhead	Rural
4-146	Fort McMurray	Medium Urban
4-147	Peace River	Rural
4-148	Grande Prairie	Medium Urban
4-149	East Kootenay	Rural
4-150	West Kootenay	Rural
4-151	Kelowna	Large Urban
4-152	Vancouver	Large Urban
4-153	Hope	Rural
4-154	Victoria	Large Urban
4-155	Nanaimo	Medium Urban
4-156	Courtenay	Medium Urban
4-157	Powell River	Rural
4-158	Squamish/Whistler	Rural
4-159	Merritt	Rural
4-160	Kamloops	Medium Urban
4-161	Ashcroft	Rural
4-162	Salmon Arm	Rural
4-163	Golden	Rural
4-164	Williams Lake	Rural
4-165	Quesnel/Red Bluff	Rural
4-166	Skeena	Rural
4-167	Prince George	Medium Urban
4-168	Smithers	Rural
4-169	Dawson Creek	Rural
4-170	Yukon	Rural
4-171	Nunavut	Rural
4-172	Northwest Territories	Rural

