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Spectrum Management and Telecommunications

# **New Licensing Framework for the 24, 28 and 38 GHz Bands and Decision on a Licence Renewal Process for the 24 and 38 GHz Bands**

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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 [Canada Gazette](#) notice SLPB-003-14 – [Consultation on a New Licensing Framework and Licence Renewal Process for the 24, 28 and 38 GHz Bands](#) (hereinafter referred to as the Consultation).

2. All comments and reply comments received in response to this consultation are available on Industry Canada's [website](#) at <http://www.ic.gc.ca/spectrum>. Comments and/or reply comments were received from Bell Mobility Inc. (Bell), Globalive Wireless Management Corp. (WIND), I-NetLink Incorporated (I-NetLink), Javelin Connections Inc. (Javelin), Mobilexchange Spectrum Inc. (MSI), MTS Allstream (MTS), Québecor Media Inc. (Québecor), Rogers Communications Partnership (Rogers), TELUS Communications Company (TELUS) and TeraGo Networks Inc. (TeraGo).

3. The following document (hereinafter referred to as the Decision) sets out decisions for the new licensing process for remaining and unassigned spectrum in the 24, 28 and 38 GHz bands and the renewal of 24 and 38 GHz auctioned licences.

## 2. Background

4. In 1999, Industry Canada conducted its first spectrum auction for fixed point-to-point and point-to-multipoint broadband wireless access in the 24 and 38 GHz bands. The auctioned 24 GHz band refers to 400 MHz of paired spectrum with the lower frequency band of 24.25-24.45 GHz and the upper frequency band of 25.05-25.25 GHz. The auctioned 38 GHz band refers to 800 MHz of paired spectrum with the lower frequency band of 38.70-39.10 GHz and the upper frequency band of 39.40-39.80 GHz. Of the 354 licences made available for the auction, 260 were awarded to 12 licensees. The 94 licences that were not awarded remained with Industry Canada.

5. An additional 800 MHz portion of the 38 GHz band was made available for first-come, first-served (FCFS) licensing. DGRB-003-99/DGTP-005-99, [Final Policy and Licensing Procedures for the Auction of the 24 and 38 GHz Frequency Bands](#), made 38.4-38.6 GHz, 38.6-38.7 GHz, 39.1-39.3 GHz, 39.3-39.4 GHz, and 39.8-40 GHz available for FCFS licensing on a geographic basis (i.e. grid cells). The band 38.4-38.6 GHz is designated for unpaired point-to-point and unpaired multipoint communication systems. The band 38.6-38.7 GHz is paired with 39.3-39.4 GHz and the band 39.1-39.3 GHz is paired with 39.8-40 GHz. These paired bands are designated for point-to-point microwave systems.

6. In April 2008, Industry Canada issued [Canada Gazette](#) notice DGRB-001-08 – [Consultation on the Renewal of 24 and 38 GHz Spectrum Licences and Spectrum Licence Fees for 24, 28 and 38 GHz Bands](#). This consultation dealt specifically with the renewal of the 24 and 38 GHz licences issued following the 1999 auction and discussed on what basis 24 and 38 GHz licences should be renewed, and proposed a renewal fee that would apply to new and renewed licences in the 24, 28 and 38 GHz bands. The paper also proposed a first-come, first-served licensing process for unassigned or returned spectrum, including spectrum in the 28 GHz band.

7. The 28 GHz band refers to the frequency bands 25.25-26.50 GHz and 27.50-28.35 GHz, which consists of 2,100 MHz of spectrum. DGTP-002-10 – [Consultation on the Use of the Band 25.25-28.35 GHz](#), announced an interim licensing process for this band where licensees would be issued site-specific radio licences. The Department indicated that it would immediately begin accepting applications for radiocommunication station licences, to be issued on a non-standard basis, in parts of the bands. SP 25.25 – [Spectrum Utilization Policy, Decisions on the Band 25.25-28.35 GHz](#), was also released and addresses the implementation of fixed radio systems in the band.

8. In June 2014, Industry Canada issued [Canada Gazette](#) notice SLPB-003-14 – [Consultation on a New Licensing Framework and Licence Renewal Process for the 24, 28 and 38 GHz Bands](#). This consultation set out considerations for renewal of auctioned licences in the 24 and 38 GHz bands, as well as a licensing process for all three bands, which would make spectrum available in an expeditious and efficient manner.

9. The bands addressed in this decision paper include:

- (a) The 24 and 38 GHz spectrum that was made available in the 1999 auction (see paragraph 4);
- (b) The 28 GHz spectrum, currently available through an interim licensing process on a FCFS radio site-specific licensing basis (see paragraph 7); and
- (c) The 38 GHz band, currently available for spectrum licensing on a FCFS basis (see paragraph 5).

10. Section 3 of this paper addresses the new licensing process for available spectrum in the 24, 28 and 38 GHz bands. Section 4 addresses the existing FCFS 38 GHz licences. Section 5 addresses the renewal process for auctioned 24 and 38 GHz.

### **3. Decisions for New Licensing Process for 24, 28 and 38 GHz Bands**

#### **3.1 New Licensing Process for 24, 28 and 38 GHz Spectrum Bands**

11. As noted above, spectrum in the 24, 28 and 38 GHz bands has been assigned through various licensing processes, using either site-specific or spectrum licences. Since all of these bands are used for fixed services and similar applications, in the Consultation, Industry Canada sought comments on the proposal to license any available spectrum in all of these bands through site-specific licensing on a FCFS basis.

12. The 28 GHz band is currently being licensed under the interim, site-specific licensing process, which is consistent with the proposal going forward. The Department sought comments on its proposal that existing non-standard licences in the 28 GHz band be made standard.

## Comments

13. MSI, Bell, Rogers, I-NetLink and Quebecor noted that demand is expected to increase in the 24, 28 and 38 GHz bands as backhaul capacity is required for wireless networks.
14. All respondents agreed with a FCFS licensing approach for these bands. Bell generally agreed with the direction and policies outlined in the consultation. MTS had no objections to these proposals and noted that since supply exceeds demand they support moving towards a FCFS process.
15. TeraGo, WIND and Rogers supported FCFS licensing but did not support the current fees associated with site-specific licences in these bands. TeraGo suggested that the current FCFS shared spectrum licensing used for a portion of the 38 GHz band, already makes efficient use of the spectrum by allowing operators to deploy in a given grid cell area and on a shared basis with other licensees. They suggested that this achieves the same goal as radio licensing for efficient use of the spectrum since areas are not provided on a tier basis and are not exclusive to an operator. They added that there would be economic challenges created by such a licensing scheme and it would make these bands no longer viable for fixed wireless deployment. They noted that currently, fees do not take a link's spectral efficiency into consideration.
16. Similarly, WIND did not support site-specific licensing since the fee structure discourages the adoption of adaptive modulation or other techniques to increase the number of channels that can be generated on a single transmit or receive frequency.
17. TELUS agreed with TeraGo's statement that site-specific licensing in these bands will cause unreasonably high fees and suggested that Industry Canada consider modernizing the fee structure as part of a timely consultation to facilitate the development of these bands.
18. Rogers was not in favour of site-specific licensing as site licensing would fundamentally change the business model for deployment in the 38 GHz band; furthermore, site-specific licensing may provide an incentive for current and potential users to consider alternative ways of deploying connectivity, such as fiber. They also suggested that the current FCFS shared spectrum licensing process is successful and there is no evidence to suggest it could not also be effective in licensing new systems.
19. MSI agreed with TELUS and Rogers that area-based licensing is preferable to site-specific licensing given the benefits of technological operational certainty, the low operational overhead associated with coordination relative to a non-exclusive framework, more reasonable licence fees, a lower administrative burden on Industry Canada and greater flexibility in terms of band use. However, MSI considered that site-specific licensing was warranted for licensing residual spectrum left over from the 1999 auction.
20. TeraGo, TELUS, Rogers, MTS and MSI indicated that FCFS shared spectrum licensing would be a more appropriate licensing process. TeraGo added that radio licensing would create an undue administrative burden for the Department and operators, as an application and departmental authorization would be required for each individual link. This managed approach would be less efficient since authorizations for radio licensing applications can take as long as six weeks. Currently, spectrum

licensing enables operators to plan and deploy within three to five days to quickly meet bandwidth demands. TeraGo further commented that shared grid cells can provide the same opportunity for spectrum use as site-specific licensing.

## Discussion

21. The 24, 28 and 38 GHz bands are designated for the use of fixed point-to-point and point-to-multipoint systems. The propagation characteristics for fixed services in these bands allow licensees to operate relatively close to each other.
22. A spectrum licensing approach provides licensees more flexibility to adjust and expand their use of the spectrum as required. This is particularly useful when deploying commercial mobile services where there is a need to cover large areas and serve a large number of subscribers who could be anywhere.
23. Many respondents did not support the use of site-specific licensing based on the radio fees applicable to site licensing. For fixed services, particularly at these frequencies, and since demand for these bands is expected to increase, site-specific licensing can maximize the efficient use of the spectrum by allowing many licensees to operate in the same area. Currently radio licensing is used for all other backhaul bands, including the upper and lower frequencies of 6 GHz, 8 GHz, 11 GHz, 15 GHz, 18 GHz and 23 GHz. Industry Canada maximizes the use in these bands by managing access to reduce interference issues. Therefore, site-specific licensing, as proposed in the consultations, would provide a more consistent licensing approach since all bands are used for similar services. Aligning the licensing approach would also ensure that decisions regarding what spectrum to use for backhaul would not be unreasonably influenced by significant differences in the licence fees, since similar fees would apply for each of the bands.
24. Fees for site-specific licences, as set out in the [Radiocommunication Regulations](#), will apply. The fee is determined by the type of station licensed and the type of service used. Schedule III, Part II, Column IV of the [Radiocommunication Regulations](#) is used for calculating radio licence fees for fixed stations that communicate to other fixed stations. Additional information on how to calculate radio fees can be found in RIC-42 – [Guide for Calculating Radio Licence Fees](#).
25. Existing 28 GHz radio licences that were issued as non-standard licences as part of the interim licensing process would be issued standard radio licences in their place provided the technical requirements as outlined in the relevant SRSP are met.
26. For the FCFS site-specific licensing process, standard radio licence procedures, as per RSP-113 – [Application Procedures for Planned Radio Stations Above 960 MHz in the Fixed Service](#), including conditions of licence, will apply.
27. Licensees must continue to follow the applicable technical requirements as outlined in SP 25.25 – [Spectrum Utilization Policy, Decisions on the Band 25.25-28.35 GHz](#) and SP 23/38 – [Spectrum Policy and Licensing Considerations, Fixed Radio Systems in the 23 GHz and 38 GHz Frequency](#)

*Bands*. These documents will be revised to reflect the decisions made in this paper for the 24, 28 and 38 GHz bands.

28. As noted in the Consultation, a change to footnote C51 of the [Canadian Table of Frequency Allocations](#) will be required to reflect the change from area licensing to site-specific licensing.

## Decision

**D1 – A FCFS licensing process will be implemented for all available spectrum in the 24 GHz (24.25-24.45 GHz, 25.05-25.25 GHz) and the 38 GHz (38.70-39.10 GHz and 39.40-39.80 GHz) bands, and within the 28 GHz band (25.25-26.5 GHz and 27.5-28.35 GHz) as site-specific licences with applicable radio fees.**

**D2 – Industry Canada will make existing non-standard licences in the 28 GHz band standard at the time of publication of this document.**

**D3 – Footnote C51 to the [Canadian Table of Frequency Allocations](#) is updated as follows:**

**C51 (CAN-14)** The band 38.6-40 GHz is being licensed for applications in the fixed service, which will be given priority over fixed-satellite service systems sharing this spectrum on a co-primary basis. Fixed-satellite service implementation in this spectrum will be limited to applications which will pose minimal constraints upon the deployment of fixed service systems, such as a small number of large antennas for feeder links.

## 3.2 Channel Size

29. Both Block A in the 24 GHz band and Block B in the 38 GHz band were auctioned as 200 + 200 MHz blocks. However, since Industry Canada proposed no longer issuing licences according to the auction blocks, the Department sought comments on issuing site-specific licences based on the SRSP-defined channel sizes, as discussed in SRSP-324.25 and SRSP-338.6. In the Department's proposal, the 24 GHz auctioned spectrum, Block A, would be licensed as 40 + 40 MHz paired blocks and the 38 GHz auctioned spectrum, Block B, would be licensed as 50 + 50 MHz paired blocks and licensees could apply for multiple blocks to meet their needs.

## Comments

30. TELUS indicated they supported the proposal of the current channel bandwidth of 40 MHz in 24 GHz and 50 MHz in 38 GHz and would like the Department to be aware during the licensing process that licensees prefer adjacent channels.

31. I-NetLink Wireless indicated they would be limited by the 50 MHz paired blocks as demand for rural backhaul increases and would therefore require blocks larger than 50 MHz.

32. Quebecor supported 50 MHz blocks and having two blocks adjacent to each other as is the case in the 11, 15 and 18 GHz bands. They supported TELUS's comment from [Canada Gazette](#) notice SMSE-018-12 – [Consultation on Spectrum Utilization Policies and Technical Requirements Related to Backhaul Spectrum in Various Bands, Including Bands Shared With Satellite, Mobile and Other Services](#), in which TELUS stated that the 38 GHz band has significant spectrum that could be used for short urban backhaul, but that the fragmentation between FCFS and auctioned spectrum makes it difficult to use this band as a fibre alternative, since the band would require paired blocks larger than 50 MHz + 50 MHz.

## Discussion

33. Licensees have different bandwidth requirements and Industry Canada agrees with stakeholder comments that licensing block sizes that meet these requirements increases flexibility and efficiency. The proposal provides for licensing in accordance with the radio frequency block arrangements that are described in the relevant SRSPs for the 24 GHz ([SRSP-324.25](#)), 28 GHz ([SRSP-325.25](#)) and 38 GHz ([SRSP-338.6](#)) bands, consistent with the comments received on this issue.

34. Applicants may apply for more than one block and Industry Canada will issue licences for contiguous spectrum where possible.

## Decision

**D4 – Industry Canada will license the 24, 28 and 38 GHz bands based on the channel sizes defined in the relevant SRSPs.**

### 3.3 Point-to-Point and/or Point-to-Multipoint in 38 GHz FCFS

35. When the Department made spectrum in the 38 GHz band available through a FCFS process, six frequency pairs of 50 + 50 MHz (a total of 600 MHz) were designated for licensing for point-to-point use only. Unpaired spectrum in the 38 GHz band allows for both point-to-point and point-to-multipoint use and the auctioned portion of this band also allows for both uses.

36. The consultation proposed that these blocks of paired for FCFS 38 GHz spectrum that are currently designated for point-to-point use only should also be permitted to allow point-to-multipoint use in order to align with the rest of the 38 GHz band.

## Comments

37. TELUS supported point-to-multipoint use in the 38 GHz band.

38. TeraGo noted that coordination of the two types of deployment may become complex given a shared basis of the band and short propagation. They advise that only point-to-point use be permitted.



39. Quebecor did not support point-to-multipoint use in the band due to the extensive coordination that would be required and because the main use is for backhaul. If allowed, they suggest point-to-multipoint should be permitted only at the extreme ends of the 38 GHz band.

### Discussion

40. Given the decision above to implement site-specific licensing going forward, the concerns raised by TeraGo and Quebecor will be addressed since Industry Canada will manage the coordination.

41. Given that most licensing for 24, 28 and 38 GHz spectrum permits both uses, allowing use of both point-to-point and/or point-to-multipoint in the entire 38 GHz band provides consistency and also offers flexibility to provide a broader range of services.

### Decision

**D5 – Industry Canada will permit the use of both point-to-point and/or point-to-multipoint for new licences within the frequency ranges 38.6-38.7 GHz, 39.1-39.4 GHz, and 39.8-40 GHz.**

## 4. Decision for Existing 38 GHz FCFS

### 4.1 38 GHz FCFS Licences

42. In the Consultation, Industry Canada proposed a consistent licensing approach throughout the 38 GHz band. The intent of this proposal was to enable licensees to aggregate channels across the 38 GHz band to obtain larger channel sizes, which increases capacity. This would give greater flexibility to licensees to address increased spectrum requirements for backhaul as a result of growing consumer demand, faster data rates and more sophisticated applications.

43. CPC-2-1-17 – [\*Licensing Process and Application Procedure for Non-auctioned Spectrum Licences in the 38 GHz Band\*](#), contains the licensing process and the conditions of licence for the FCFS 38 GHz band. The Department uses grid cells to define service areas. A spectrum grid cell is a hexagon covering an area of 25 square kilometers. The minimum authorized service area normally consists of a group of five adjacent spectrum grid cells or 125 square kilometers. Each grid cell could be shared with multiple licensees. The annual licence fees for paired and unpaired blocks are \$240 and \$120 per spectrum grid cell, respectively.

44. Industry Canada sought comments on the proposal to continue to provide licensees with the opportunity to renew their existing 38 GHz spectrum licences as issued under the above-mentioned licensing process and that existing radio stations operated under these licences will continue to be authorized under the grid cell licence. However, any new station or modifications of an existing station would require a new radio licence.

## Comments

45. With respect to the treatment of existing 38 GHz licences issued under the FCFS licensing process, Rogers, TELUS and TeraGo suggested that additional links in 38 GHz FCFS should not require new site-specific licences.

## Discussion

46. As noted above, Industry Canada has determined that the most appropriate licensing process for fixed systems in the 24, 28 and 38 GHz bands is site-specific licensing and this is the licensing process that will be used going forward in order to provide a more consistent licensing approach across all bands used for similar services. However, in recognition of the existing licensees' use of the bands and in order to minimize disruption of the existing systems, Industry Canada will allow licensees of these systems to obtain new spectrum licences based on their existing links. However, consistent with the decision on licensing going forward, any new links will require a new radio licence.

## Decision

**D6 - Licences in the 38 GHz band licensed on a FCFS basis may renew their existing spectrum licences based on their existing deployment. The licences are subject to the current spectrum licence fee for grid cell described above. However, deployment of any new stations within those licensed areas or modification of an existing station authorized as part of that licence will be authorized through the new FCFS site-specific licensing process described in Section 3.**

## 5. Decision on the Renewal of Auctioned 24 GHz and 38 GHz Spectrum Licences

### 5.1 Eligibility for Renewal

47. The auctioned 24 and 38 GHz spectrum licences were awarded with 10-year terms from the date of issuance. Industry Canada indicated that at the end of the term or any subsequent term, licensees would have a high expectancy of renewal for a further 10-year term unless a breach of a licence condition had occurred, a fundamental reallocation of spectrum to a new service was required or an overriding policy need arose.

48. The conditions of licence also included a deployment requirement for licensees to demonstrate to the Minister of Industry that their spectrum has been put to use within three years of the auction's close. Licensees were required to show the establishment of eight links per one million population (rounded up to a whole number) within a service area, or provide some other indicator of usage deemed acceptable to the Department. The objective of this licence condition is to ensure that spectrum, a limited public resource, is put to use in a timely manner.

49. There were two extensions to the deployment requirement offered to licensees citing lack of suitable and affordable equipment. The first was granted to July 2007 and a second one until the end of the licence term. The deployment requirement was then extended a third time when the licence term was extended for an additional five years.

50. In the Consultation, Industry Canada proposed that the deployment condition of licence of eight links/million population (rounded up to a whole number) within a service area be the minimum indicator of usage acceptable for meeting this condition of licence, given that there is deployment within some licensed areas and certified equipment in both bands.

51. The Consultation sought comments on the proposal to renew auctioned licences in the 24 and 38 GHz bands as Tier 3 spectrum licences, for 10-year terms, for those licences in compliance with their conditions of licence and to not renew licences that are not in compliance with all of their conditions of licences, as set out in the document.

### **Summary of Comments**

52. Regarding the 24 and 38 GHz licence renewal, the Department received comments from Bell, I-NetLink, Javelin, MSI, MTS, Quebecor, Rogers, TELUS, TeraGo and WIND.

53. TELUS, Bell, WIND, TeraGo and MTS supported the proposal to only renew licences that have met all conditions of licence.

54. TELUS supported renewal of those licences that have met their conditions of licence and to not renew licences that have no deployment. However, also suggested that those with partial deployment and that have otherwise met all other conditions of licence should be eligible under the renewal process for a subdivided Tier 3 licence commensurate with the level of deployment achieved.

55. MSI, Quebecor and Javelin disagreed with the Department's proposal.

56. MSI stated that all licence terms should be extended by an additional 10 years, with the deployment condition also being extended for 10 years or for at least five years. They indicated that as a result of the upcoming auctions that the demand for backhaul will increase. MSI further argued that granting the deferral to the deployment requirement will ensure that licensees are able to obtain the value that they anticipated from their considerable capital expenditures in 1999.

57. Quebecor provided a similar comment, noting that extending the licence term would provide licensees with additional time to generate returns on their investments, now that technology has

developed further. They added that it is critical to retain these licences in regions where they do not have fiber and these licences will be of great importance for 2500 MHz and for AWS-3 and that non-renewal will impact their ability to deploy 700 MHz.

58. Javelin believes that the best opportunity to ensure deployment of this spectrum is by the current licence holders as they have made significant financial investment in the spectrum. Javelin agrees that a new 10-year licence term should be granted but does not agree that a renewal should be contingent on deployment.

59. Rogers suggested that licensees using a lack of equipment argument to support a request for an extension to their licence term have a weak case given some licensees have deployed, demonstrating that equipment is available.

## **Discussion**

60. Licensees in the auctioned 24 and 38 GHz bands will have had 15 years in which to meet the eight links/million population deployment requirement in their Tier 3 areas. Previously, in recognition of a lack of suitable and affordable equipment, Industry Canada provided a term extension and two deployment extensions. However, as noted in the consultation, some licences have had extensive deployments in the 24 and 38 GHz bands, indicating that there is equipment available. According to Industry Canada's records, data collected shows that 913 links have been deployed in the 24 GHz band, and 82 links in the 38 GHz band.

61. In the consultation, Industry Canada proposed that the deployment condition of licence of eight links/million population (rounded up to a whole number) within a service area be the minimum indicator of usage acceptable for meeting this condition of licence. None of the respondents suggested any other level other than zero be used for assessing deployment. Given that a certain amount of deployment has taken place and the deployment condition has already been extended, a further extension is not considered to be warranted.

62. Since there is no fundamental reallocation of spectrum to a new service or an overriding policy need foreseen for these bands, licensees that have met the conditions of licence have a high expectation of renewal. Therefore, where all conditions of licence have been met by the end of the term, the licences will be eligible for a new licence for a 10-year term.

63. Licensees who have not met their deployment requirement or are in breach of any other conditions of licence at the end of their licence term will not be eligible to obtain a new spectrum licence through this renewal process. Existing licences that have some deployment, but do not meet the deployment requirement, could apply for radio licences with respect to these specific sites, as discussed in Section 4.1. This allows for the continued service of existing systems that have been deployed as well as the option to expand deployment through additional radio licences.

64. Currently, no fee applies to spectrum licences in these bands. A fee will apply to licences issued through a fee consultation to be held at a later date.

## Decision

**D7 – Where all conditions of licence for the auctioned 24 and 38 GHz licences have been met, licensees will be eligible to be issued a new spectrum licence for a subsequent 10-year term, through this renewal process.**

### 5.2 Conditions of Licence

65. The consultation set out the proposed conditions of licence, including that a high expectation of renewal should not apply to the subsequent licence term due to the transition to site-specific licensing.

66. Industry Canada stated in [Framework for Spectrum Auctions in Canada](#) that for licences issued through a renewal process, licence fees that reflect some measure of market value will apply. A consultation will be undertaken to determine the spectrum licence fees that will apply to new spectrum licences issued through this renewal process for the 24 and 38 GHz bands.

67. The Consultation sought comments on the proposed conditions of licence for the new spectrum licences in the 24 and 38 GHz bands. The Consultation also indicated that the deployment requirement will be to maintain the existing level of deployment of eight links per one million population (rounded up to a whole number) within a service area.

### Comments

68. TELUS indicated they supported all the conditions of licence except for the R&D requirement. They stated that they find the R&D requirement antiquated, even though it has been amended, and concluded it is no longer necessary; therefore, TELUS requested the R&D requirement be removed.

69. Bell supported the conditions of licence. Quebecor indicated they supported the deployment requirement of eight links per million population, but only if the term is extended.

70. Other respondents did not comment directly on the conditions of licence.

### Discussion

71. With respect to the licence term, it was proposed that new licences issued under this renewal process have a 10-year licence term. Industry Canada believes that site-specific FCFS licensing is the most suitable licensing approach for the 24 and 38 GHz bands as it enables the most efficient use of the spectrum. As such, any spectrum licences renewed at the end of the subsequent licence term will not include a high expectation of renewal. Industry Canada will hold a consultation to determine if new spectrum licences will be issued through a renewal process and, if so, under what terms and conditions.

72. In February 2014, Industry Canada released a decision modifying the condition of licence requiring licensees to invest a portion of their adjusted gross revenues in research and development (R&D) activities, as published in SLPB-002-14 – [Decisions on Conditions of Licence Regarding Research and Development and Learning Plans](#). This revised condition of licence applies to all existing spectrum and satellite licences that are currently subject to the R&D condition of licence and as such, it will be applied to the new spectrum licences in the 24 and 38 GHz bands.

73. Industry Canada encourages ongoing use of the spectrum. Therefore, licences that are eligible for renewal in the 24 and 38 GHz bands will be expected to maintain a level of deployment equal to or greater than the existing deployment condition of eight links per one million population (rounded up to a whole number), within a service area and throughout the new licence term. Annex A states the conditions of licence that will apply to these licences.

## Decision

**D8 – Spectrum licences in the 24 and 38 GHz bands which are issued through the renewal process noted above will be subject to the conditions of licence described in Annex A.**

## 6. Obtaining Copies

74. All spectrum-related documents referred to in this paper are available on Industry Canada's Spectrum Management and Telecommunications [website](#) at <http://www.ic.gc.ca/spectrum>.

75. For further information concerning the process outlined in this consultation or related matters, contact:

Industry Canada  
c/o Senior Director, Spectrum Licensing and Auction Operations  
235 Queen Street  
Ottawa, Ontario K1A 0H5  
Telephone: 613-990-4411  
Fax: 613-957-4067  
Email: [spectrum.auctions@ic.gc.ca](mailto:spectrum.auctions@ic.gc.ca)

## **Annex A – Conditions of Licence**

The following conditions will apply to new spectrum licences in the auctioned 24 and 38 GHz bands. These conditions of licence are proposed to align with the decisions taken in other processes and the proposals within the Consultation.

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, under section 5(1)(b) of the [Radiocommunication Act](#).

### **1. Licence Term**

The term of this licence is 10 years. Prior to the end of the licence term, a consultation will be held to determine whether new licences will be issued through a renewal process and if so under what terms and conditions. Therefore, these licences do not have a high expectation of renewal.

### **2. Licence Fees**

The licensee must pay the applicable annual licence fee on or before March 31 of each year for the subsequent year (April 1 to March 31).

### **3. Eligibility Criteria**

The licensee must conform to eligibility criteria as set out in Section 9(1) of the [Radiocommunication Regulations](#).

### **4. Licence Transferability and Divisibility**

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.

In all cases, the licensee must follow the procedures as outlined in Client Procedures Circular CPC-2-1-23, [Licensing Procedure for Spectrum Licences for Terrestrial Services](#).

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

### **5. Radio Station Installations**

The licensee must comply with Client Procedures Circular CPC-2-0-03, [Radiocommunication and Broadcasting Antenna Systems](#), as amended from time to time.

## **6. Provision of Technical Information**

The licensee must provide Industry Canada with, and maintain, up-to-date technical information on a particular station or network information in accordance with the definitions, criteria, frequency and timelines specified in Client Procedures Circular CPC-2-1-23 – [Licensing Procedure for Spectrum Licences for Terrestrial Services](#), as amended from time to time.

## **7. Compliance with Legislation, Regulations and Other Obligations**

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.

## **8. Technical Considerations and International and Domestic Coordination**

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.

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.

## **9. Lawful Interception**

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) – *SGES*. These standards may be amended from time to time.

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.



## **10. Research and Development (R&D)**

The licensee must invest, as a minimum, 2 percent of its adjusted gross revenues resulting from the use of this licence, 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](#), as amended from time to time. Adjusted gross revenues are defined as total service revenues, less inter-carrier payments, bad debts, third party commissions, and provincial goods and services taxes collected. The licensee is exempt from research and development expenditure requirements if it, together with all affiliated licensees that are subject to the research and development condition of licence, has less than \$1 billion in annual gross operating revenues from the provision of wireless services in Canada, averaged over the term of the licence. For this condition of licence, an affiliate is defined as a person who controls the carrier, or who is controlled by the carrier or by any person who controls the carrier, as per subsection 35(3) of the [Telecommunications Act](#).

To facilitate compliance with this condition of licence, the licensee should consult the Department's Guideline GL-03 – [Guidelines for Compliance with the Radio Authorization Condition of Licence Relating to Research and Development](#).

## **11. Implementation of Spectrum Usage**

The licensee must demonstrate to the Minister of Industry, a maintained level of deployment equal to or greater than eight links per one million population (rounded up to a whole number) within the licensed service area on an ongoing basis.

## **12. Mandatory Antenna Tower and Site Sharing**

The licensee operating as telecommunications common carrier must comply with the mandatory roaming 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.

## **13. Annual Reporting**

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;
- a statement indicating the annual gross operating revenues from the provision of wireless services in Canada, and, where applicable, the annual adjusted gross revenues resulting from the use of this licence, as defined in these conditions of licence;
- a report of the Research and Development Expenditures for licensees whose annual gross operating revenues exceed \$1 billion (the Department reserves the right to request an audited Statement of Research and Development expenditures with an accompanying Auditor's Report);

- supporting financial statements where a licensee is claiming an exemption to the Research and Development condition of licence;
- a copy of any existing corporate annual report for the licensee's fiscal year; and
- other information related to the licence as specified in any notice updating the reporting requirements as issued by Industry Canada.

All reports and statements must 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 section 20(1) of the [Access to Information Act](#).

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

Industry Canada  
c/o Manager, Emerging Networks (JETN, 15th Floor)  
Spectrum Management Operations Branch  
235 Queen Street  
Ottawa, Ontario K1A 0H5

Where a licensee holds multiple licences, spectrum implementation reports should be broken down by licence area.

#### **14. Amendments**

The Minister of Industry retains the discretion to amend these terms and conditions of licence at any time.