TELUS COMMUNICATIONS COMPANY

Comments for

CONSULTATION ON A LICENSING FRAMEWORK
FOR MOBILE BROADBAND SERVICES (MBS) —
700 MHz Band

DGSO-002-12
April 2012
Spectrum Management and Telecommunications

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Executive Summary

1. TELUS generally supports the Department’s proposed approaches with some suggested general and specific recommendations for modification to ensure that the benefits of competition, investment and innovation are delivered to the broadest number of Canadians possible, including rural Canadians in a timely fashion. This is consistent with the Minister’s statements and the Department’s decisions to date.

2. The 700 MHz spectrum to be made available in this auction affords one irretrievable opportunity to ensure that Canadians have available to them sufficient spectrum in order to satisfy their rapidly increasing demand for mobile broadband services (MBS). The consequences of error are profound for both consumers and the industry alike and TELUS encourages the Department to consider carefully its determinations flowing from this consultation.

3. The Department is seeking comments on licensing considerations related to auction format, rules and processes, as well as on conditions of licence for spectrum in the 700 MHz band.

4. The Department has stated that in developing a licensing framework for MBS in the 700 MHz band, Industry Canada will be guided by the objectives stated in section 7 of the Telecommunications Act, the policy objective stated in the Spectrum Policy Framework for Canada (SPFC) to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum, and the policy objectives outlined in SMSE-002-12, as follows:

   • sustained competition in the wireless telecommunications services market such that consumers and businesses benefit from competitive pricing and choice in service offerings;
   • robust investment and innovation by wireless telecommunications carriers such that Canadians benefit from world-class networks and the latest technologies; and
   • an availability of these benefits to Canadians across the country, including those in rural areas, in a timely fashion.
5. The Department has stated that it will also be guided by the general approaches and processes outlined in the Framework for Spectrum Auctions in Canada (FSAC), revised in March 2011.

6. With those objectives in mind, TELUS summarizes its recommendations below under four categories.

**Auction Format and Rules**

- TELUS has material concerns with the CCA but on balance does not recommend eliminating the CCA in favour of an alternative format
- TELUS questions the benefit of the generic block implementation
- TELUS urges the Department to release the auction software at the earliest opportunity
- TELUS supports the reserve prices and deposits, but suggests lower opening bids would improve price discovery
- TELUS recommends that the proposed unpaired spectrum eligibility points should be adjusted

**Conditions of Licence**

- TELUS supports the proposed 20 year licence terms
- TELUS supports the proposed conditions of licence with respect to displacement
- TELUS endorses the comments of the Canadian Wireless Telecommunications Association with respect to the proposed wording of the condition of licence related to lawful intercept requirements
- TELUS requests that the Department issue a decision removing the condition of licence related to R&D
- TELUS believes the Department and industry should be more ambitious with the general deployment requirements and outlines 7 potential issues and consequences flowing from the Department’s current proposed condition of licence. TELUS proposes modifications to the MBS general deployment requirements
• TELUS recommends greater transparency and certainty with respect to remedial action in the event of a breach of the deployment requirements

Bidder Participation – Affiliated and Associated Entities

• TELUS supports the amendments the Department has proposed to the treatment of associated entities for the purposes of the 700 MHz spectrum auction. The clarified definition and rules appear to be logical. The amendments reflect the realities of delivering mobile broadband services to Canadians, who like the rest of the world, are consuming these services at dramatically increasing rates, driving productivity and innovation in Canada

• With respect to auction integrity and transparency, TELUS proposes clarifying language to describe the features of the Department’s proposed narrative

• TELUS fully supports the Department’s proposed updates to the rules prohibiting collusion that would apply to bidders in the 700 MHz auction

• TELUS proposes some minor updates to the wording for the proposed condition of licence on spectrum aggregation limits that would help improve clarity

• TELUS proposes some minor wording changes and modifications to the wording for the proposed condition of licence related to transferability and divisibility that would help improve clarity

General

• TELUS recommends that the existing allocation of the City of Lloydminster to the Alberta tier serving area be maintained in order to minimize technical interference issues and customer confusion
TELUS’ Reply to Questions Posed by Specific Questions Posed by Industry Canada

3. General

3.1. Service Area for Lloydminster (Alberta/Saskatchewan)

| Industry Canada is seeking comments on whether or not the service area boundary for licences in the 700 MHz band should deviate from the provincial boundary around the City of Lloydminster, (Alberta/Saskatchewan) |

7. In the Department’s service spectrum service areas, the smallest tier, tier 4, comprises localized service areas. Tier 4 service areas roll up into tier 3 service areas representing larger regional areas, which then roll up into tier 2 service areas, which are largely based on provincial boundaries. In the case of some tier 4 service areas that include municipalities that straddle the boundary between two provinces, the Department has made “minor deviations” so that these municipalities are included in just one tier 4 service area. As a result, the resulting tier 4 service areas will eventually roll up into the tier 2 service area for one province, rather than having the municipalities split between two different provinces for service area boundary purposes.

8. The City of Lloydminster, which straddles the border between the provinces of Alberta and Saskatchewan, is one example of such a tier 4 area. In this consultation, the Department has proposed that the service area boundary for the City of Lloydminster for the licences in the 700 MHz band should follow current practice and fall within the province of Alberta and has requested that interested parties comment.

9. In 2000, the entirety of the City of Lloydminster was included as part of service area 2-12 (Alberta) for the purposes of the auction of additional PCS spectrum. In addition, the Department has recently clarified that a special authorization that was granted to SaskTel to provide services in the 850 MHz band in the Province of Saskatchewan, including the Saskatchewan side of the City of Lloydminster, expired with the issuance of new licences on April 1, 2004.

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1 Other examples are provided at http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf05969.html.
2 Industry Canada letter dated March 19, 2012 issued to TELUS and SaskTel.
10. Therefore, those spectrum licences for Alberta and Saskatchewan have been issued that include the City of Lloydminster as entirely within the tier 4 service area 4-129 Lloydminster (Alberta). In addition, AWS spectrum kept the City of Lloydminster whole as part of tier 2 service area 2-12 (Alberta) and as part of the tier 3 service area 3-44 (Edmonton), logically placing it in the Alberta licence hierarchy. Networks have been built and operate based on this spectrum boundary.

11. In TELUS’ view, the Department should continue the well-established and settled approach for the City of Lloydminster. The inclusion of the entirety of the City of Lloydminster as within the province of Alberta for serving area purposes is logical. Based on 2011 Census data from Statistics Canada, the total population for the City of Lloydminster was 27,804 persons. Of those, 18,032, or nearly 65%, lived within the province of Alberta. Therefore, including the City of Lloydminster within an Alberta tier serving area makes sense because a large majority of the City’s citizens reside in Alberta. This was a primary motivation with the Department’s current policy to include the entirety of Lloydminster in a tier 4 serving area that is entirely contained in province of Alberta.

12. The minor deviation that has been implemented for the City of Lloydminster means that one spectrum licence holder provides service to all of the residents in Lloydminster. This avoids numerous and significant technical and practical problems. If the City of Lloydminster service area were to be divided by provincial boundaries, then two separate licenses would be required to be able to serve the City. As a result, it could lead to the City being served by two different mobile carriers, with each carrier potentially only being able to directly serve the area up to the provincial boundary. This could cause technical problems for calls near the boundary line and possible call dropping while customers traverse the provincial border, while travelling within the city limits. In addition, customers could also face roaming charges within their own city. This could be a daily nuisance for any person in Lloydminster who, for example, lived on one side of the provincial boundary but worked on the other.

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4. Auction Format and Rules

Industry Canada is seeking comments on its proposal to use the CCA format, as well as the general attributes outlined above, including:

- the categories of generic licences;
- the guarantee of contiguity across blocks A and B in the lower 700 MHz band in a specific service area;
- the combined eligibility point and revealed preference activity rule in the clock rounds, and the revealed preference limit in the supplementary round;
- the use of a second-price rule; and
- the information to be disclosed during, and post-auction.

13. The Department’s opening line⁴ of the section on auction format and rules in the consultation states:

“The auction format should be simple, fair and transparent for bidders; one that leads to an efficient assignment of spectrum.”

14. TELUS supports this sensible vision. However, TELUS is concerned that the Department’s proposals do not fully achieve this objective for a number of reasons:

- The proposed auction is not simple for bidders despite what may be claimed⁵
- Based on experiences with CCAs in other jurisdictions (albeit with slightly different rules in addition to different product packaging, market dynamics and spectrum), it is not clear to TELUS that when the Canadian 700 MHz auction is over, fairness will be well reflected in the final prices for the various winners’ packages. Lack of price predictability / equity was most notable in the recent Swiss CCA⁶, where Sunrise paid a significant premium for similar spectrum to that of its competitors
- While there may be post auction audit transparency, it seems there may be transparency issues before and during the auction given that the licence winners and their prices depend on a complex set packing algorithm which the Department

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⁴ DGSO-002-12 paragraph 15
⁵ For example, in paragraph 20 of the consultation, where the department suggests, “the CCA format provides a simple bidding process for participants”.
⁶ Sunrise CEO calls Swiss mobile auction format “very unfavourable, Policy Tracker Spectrum publication, June 2012.
suggests that it will only provide to bidders on paper (i.e., not release the auction software to bidders that, as TELUS understands, other jurisdictions have)

15. At its Auction Information Session on May 30th, the Department justified\(^\text{7}\) its CCA proposal by listing four main reasons why a CCA improves on an SMRA:

a. Eliminates exposure by allowing package bids  
b. Minimizes gaming as a result of package bids and the pricing and activity rules  
c. Enhances substitution by using generic licences whenever possible  
d. Simplifies bidding

16. TELUS agrees that the CCA design does do all of these things to a certain extent, but that the CCA does not do these things flawlessly. The benefits of the CCA come with costs and the net impact is not entirely clear to TELUS. The SMRA format has well known shortcomings and it appears that the CCA design is evolving to attempt to manage its own shortcomings as they are exposed.

a. TELUS agrees that package bidding eliminates exposure but in TELUS’ view it comes at the cost of the reliance on a “solver” to determine both winners and pricing which can, it appears\(^\text{8}\), under certain conditions, produce unexpected and/or inequitable results. TELUS understands that an updated revealed preference rule is being introduced to attempt to address such issues. However, it is TELUS’ understanding that this relative cap only limits the possibility of the supplementary round “knock-out” bid that displaces the final clock round package of another bidder even with a market clearing final clock round. It is not market tested, and in no way corrects for probable inequity, as occurred, for example in the Swiss CCA in February of this year.

b. TELUS agrees that the proposed auction format and activity rules minimize certain well known types of gaming associated with SMRAs, but TELUS is

\(^\text{7}\) According to its concluding slide at its May 30 Auction Information session. The Department in its summary remarks on auction format in paragraph 57 of its consultation noted the same benefits except that it highlighted bidding flexibility as opposed to bidding simplicity.

\(^\text{8}\) Sunrise CEO calls Swiss mobile auction format “very unfavourable, Policy Tracker Spectrum publication, June 2012.
concerned that there may be new forms of gaming to emerge with CCAs. In fact, it is TELUS’ understanding that the CCA proposed for Canada represents about the 3rd or 4th generation of CCA activity rules developed in response to issues pertaining to auction results arising from previous generations of CCA activity rules.

c. TELUS agrees that generic blocks simplify bidding during the clock rounds, but it is not clear to TELUS that the generic block design proposed for the Canadian 700 MHz auction delivers a net positive benefit. The simplification is limited to the impact of going from 7 products per region to 4 products. The cost of generic blocks is an increase in bidding complexity – an assignment stage that makes clock and supplementary round bidding more challenging as a bidder has to work backward from assumptions made regarding costs in the assignment round.

d. TELUS agrees that bidding during the clock rounds of a CCA is simplified versus an SMRA when it comes to switching packages in response to price pressure (because a bidder is not constrained by any high standing bids), but TELUS rejects the notion that bidding overall is simplified for bidders in a CCA versus an SMRA:

• bidders must now track their own revealed preference constraints to guide their bidding through both the clock rounds and the supplementary round;
• bidders potentially face a complex bidding task at the supplementary round stage, depending how the final clock round ends; and
• bidders must decide on their clock round bids while taking into consideration their best forecast of the assignment price they may have to pay on top of their base price, potentially making it extremely challenging from a budgeting perspective.

17. In summary TELUS’ view is that the proposed CCA format, while perhaps attractive from an auction theory perspective, in practice will not be simple for bidders which during the bidding process will be unable to predict how much they may end up paying. Further, there is a reasonable probability that the outcomes will be perceived as unfair, potentially amplified by transparency issues related to the disclosure, workings and outcomes of the “solver” algorithm for winner determination and price determination.
18. The Department believes the CCA is better than an SMRA for the Canadian 700 MHz band. TELUS recognizes that the Department is faced with difficult decisions in determining this. It is not clear to TELUS that reverting to an SMRA is the best course. There are costs and benefits to that route as well. On balance, despite the concerns raised, TELUS does not recommend scrapping the proposal to auction the 700 MHz band via a CCA but encourages the Department to look for means to further simplify the CCA auction proposed and address the issues raised herein.

19. The balance of TELUS comments in this section assume that the Department decides to implement a CCA generally along the lines proposed. TELUS provides comments on the impacts of the various auction attributes proposed. We divide our comments into four sections:

- Package bidding and the activity rules
- Generic block groupings and assignment
- Second price rule
- Bidder information disclosure

Package bidding and the activity rules

20. TELUS can see the benefit of package bidding as it eliminates exposure risk.

21. TELUS agrees that the clock round rules allow bidders to enter bids on the package of their choice (subject to activity rules) without being constrained by standing high bids locking up eligibility and preventing a switch between substitute packages (as can be the case with an SMRA).

22. With exposure eliminated via package bidding, TELUS concurs that the Department’s proposal to set the required activity level at 100% from clock round 1 is workable but TELUS would not be opposed if the required activity level was set somewhat lower (say 80%) in the early stages if it was deemed to increase the efficiency of the auction.
23. TELUS supports the intent of the relaxed activity rule that allows bidders to place bids that contravene their eligibility limits as long as the bids satisfy the revealed preference rule.

**Generic block groupings and the assignment stage**

24. The Department’s second half of its introductory paragraph 15 on auction format and rules in the consultation states:

“In the selection of an auction format and related rules, consideration is given to the characteristics of the spectrum being auctioned, for example, the quantity and size of the blocks, their geographic characteristics and the similarities that may exist among the blocks”

25. TELUS has concerns with the proposed generic block groupings for the Canadian 700 MHz auction. TELUS does not dispute the Department’s assessment of which blocks are “similar enough and of comparable value such that they can be offered in a single category”. TELUS is concerned that the complexity introduced by the assignment stage outweighs the benefit of the purported “enhanced substitution” created by productizing seven licences per service area as three pairs and a single. TELUS has a concern that the generic block functionality of the CCA is being used for its own sake; applied in the Canadian 700 MHz auction design despite a relatively weak fit, as compared to other CCAs where it has been applied\(^9\). The existence of the assignment stage increases the risk of an inefficient allocation and makes bid decisions in the clock and supplementary rounds harder because a bidder needs to factor in a forecast of the impact of the assignment stage on their total cost. If the CCA auction was for the seven specific blocks then the assignment stage could be eliminated ultimately resulting in a more simplified auction format.

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\(^9\) It has generally been the case in other countries where CCAs have been implemented that the generic block groupings have resulted in much more significant product count reductions. Ratios such as 14:1 and 10:1 (versus 7:4 for the Canadian 700 MHz auction) better justify the introduction of an assignment phase.
26. The Department in its consultation in paragraph 25 suggests that generic blocks:

   *enhance the possibility of substitution; and*

   *simplify the bidding process by reducing the possible number of combinations on which bids may be placed*

27. It is unclear to TELUS that either of these are material benefits in the case of the Canadian 700 MHz auction and the generic block groupings proposed. TELUS concurs that generic blocks theoretically increase substitution when bidders have no preference for specific blocks within a generic block grouping. However, TELUS questions the real need for this marginally enhanced substitution when there are so few blocks, bidders are capped and the CCA design itself provides the flexibility of package bidding.

28. If specific blocks within a generic block grouping are truly pure substitutes, then TELUS believes that, theoretically, there would be no difference between a generic or specific block implementation (because there is no exposure). If on the other hand, the specific blocks within a generic block grouping are not pure substitutes to two or more bidders, then the grouping could have the effect of causing one winner of a generic block subsidizing the other winner whenever the two bidders valued the same specific block more than the other. Further, whenever a bidder values two specific blocks within a generic block grouping differently (for whatever reason), then their bidding process becomes more complicated as they constantly have to factor in their forecast of the assignment price they might have to pay.

29. With respect to automatically assigning the Lower B block in a service area to any B / C block winner that has also won the Lower A block in that service area, TELUS supports the intent of this guarantee of contiguity.

**Second price rule**

30. TELUS appreciates the positive aspects of a second price rule which results in a bidder’s price being determined by the competitive bids of others.
TELUS is concerned that a bidder’s base price, while bound, is indeterminate. This significantly complicates the bid process and bid governance, especially if auction prices approach bidders’ internally approved budgets. From a budgetary perspective, the SMRA format was much simpler to manage as a bidder, given that the price bid in the clock round was the price that was to be paid.

Another aspect of the nearest Vickrey price rules that concerns TELUS is the potential for inequitable results to emerge at the end of a CCA auction. There are a number of examples, most notably the multi-band Swiss auction which ended in February 2012 where very similar spectrum went to different bidders at dramatically different prices (Sunrise paid a dramatically higher price on a relative basis than that paid by Orange or Swisscom). The complex allocation and pricing algorithm used in CCA auctions make it very challenging for bidders to predict pricing, notwithstanding the fact that bidders are fully in control of their own bids.

Given the complexity highlighted above TELUS is very concerned that the Department has said that it would not be releasing the auction software to the industry. TELUS understands that releasing such software has been standard practice, and something done well in advance of the auction, in other jurisdictions where CCAs have taken place. TELUS believes it is essential that all bidders be given every opportunity to better understand the actual “solver” software prior to committing significant capital to acquire the spectrum.

Bidder information disclosure

TELUS supports the Department’s new approach to information disclosure as proposed in every aspect and notes that TELUS in paragraphs 163 and 186 of its February 28, 2011 response to SMSE-018-10 called for anonymous bidding “to encourage honest versus strategic bidding” and to eliminate the potential for anti-competitive behaviour.

While TELUS supports anonymous bidding as an attribute that will reduce gaming and encourage honest bidding, TELUS is unsure how anonymous bidding will in fact simplify the bidding process as asserted by the Department in paragraph 51 of the consultation.
document. In fact many bidders will be faced with increased complexity as they speculate during the auction about which bidders they are competing with and the implied potential scenarios for industry structure into the future (e.g. cableco or new entrant consolidation). It is interesting to note that the Department on one hand supports the efficient use of spectrum by the industry through sharing\textsuperscript{10}, yet on the other hand proposes an auction attribute that makes it extremely challenging for participants to achieve compatible spectrum, which is already difficult enough given that the Upper and Lower 700 bands are incompatible. This impacts operators both large and small who may be seeking capital efficiencies and may frustrate the objectives the Department has outlined to encourage competition, investment and innovation to the broadest number of Canadians, in a timely fashion. As one AWS entrant\textsuperscript{11} put it:

“It’s never been more clear that new entrants have to work together.”

“We can’t get enough spectrum in the next auction, so we have to find ways to partner.”

36. While TELUS understands that foreign direct investment rules will be updated in advance of the auction, uncertainty in any of the other eligibility criteria could conceivably distort the auction outcome. TELUS believes that for an auction to function in a fair manner it is essential that all participants be qualified to hold the spectrum they are bidding on. The Department needs to confirm and disclose this in advance of the start of the auction.

37. TELUS has raised a number of issues with the Department’s auction proposals and encourages the Department to look for means to further simplify the upcoming 700 MHz auction.

\textsuperscript{10} The Department describes the need for and supports the efficient use of spectrum by competing operators in its consultation in paragraphs 61 – 63.

\textsuperscript{11} Tony Lacavera, chairman and chief executive officer, in an interview following his keynote address at the Canadian Telecom Summit. From the Globe and Mail on June 6th http://www.theglobeandmail.com/report-on-business/globalive-mulls-possible-partnership-plans/article4235302/
5. Bidder Participation — Affiliated and Associated Entities

Industry Canada is seeking comments on its proposed changes to the definition and rules related to associated entities. Specifically, comments are sought on:
- the types of agreements that should be captured under the definition of associated entities;
- the level of information to be disclosed to the public;
- the provision that typical roaming and tower sharing be specifically excluded from the revised definition of associated entities and whether other types of agreements such as the purchase of backhaul capacity should be deemed excluded;
- the proposal that entities that are deemed associated entities may apply to be treated as separate entities for participation in the auction;
- the proposal that associated entities may request to have the spectrum caps apply to them separately, based on an analysis of their association and of whether they intend to compete in the same licence service area;
- the criteria to be considered in determining whether the entities are competing; and
- the proposal that no changes be made to the affiliated entities rule.

38. TELUS supports the amendments the Department has proposed to the treatment of associated entities for the purposes of the 700 MHz spectrum auction. The clarified definition and rules appear to be logical. The amendments reflect the realities of delivering mobile broadband services to Canadians, who like the rest of the world, are consuming these services at an ever increasing rate, driving productivity and innovation in Canada.

39. The Department deliberately recognizes the benefits to Canadians of mobile operators’ efforts to reach more Canadians by cooperating at the radio access network (RAN) level. The shared risk / shared reward model provides the efficiencies to drive builds further and further into the uneconomic fringes of our massive country to bring mobile broadband service to more Canadians. The Department rightly recognizes the need to support innovative and cost efficient ways to serve Canadians through world leading innovation and efficiency gains that are now being adopted in Europe. The Department rightly considers “associated entities” in the context of a specific auction with a focus on any agreements that specifically pertain to the band being auctioned. The integrity of the auction is the prime concern, as it should be.

40. TELUS supports the Department’s recommended changes to the rules regarding associated entities “in support of the stated policy objectives of competition, investment
and timely deployment to rural areas, and in light of the current scarcity of spectrum in the 700 MHz band, the high demand for capacity by customers (driven by the use of smartphones and tablets), the high cost of network deployment, particularly in rural areas, as well as the spectrum and network efficiencies that can be achieved through such arrangements” as the Department notes in paragraph 62 of DGSO-002-12.

41. The definition of associated entities proposed by the Department is simple, clear and logical. It clarifies that associated entity status for the purposes of a specific auction is derived from the presence of certain types of arrangements relating to the specific spectrum to be auctioned.

**Bidding in the Auction**

42. The Department notes that even if certain arrangements between entities cause them to be deemed associated entities, that “depending on the nature of the association, it may not preclude the ability of the entities to participate separately in the auction or to have the spectrum caps applied individually.” This is an important distinction and is in essence a simplifying proposal that TELUS supports. It means that if entities have entered arrangements that cause them to be deemed associated, there are circumstances (based on the nature of the association and the intent to compete) in which those entities can bid separately with separate caps in the 700 MHz auction.

**Auction Integrity and Transparency**

43. TELUS supports the proposal that entities wishing to participate in the auction process be required to disclose the names of affiliated and associated entities along with a narrative describing the nature of the association or affiliation but suggests that the language be clarified. The proposed narrative to be submitted would “describe the nature and note all key elements of the affiliation or association in relation to the acquisition of the spectrum licences being auctioned and, the post-auction relationships of the said entities.” That is, the narrative would only require a description of the elements of the affiliation or association that relate in any way to the acquisition or future use of the 700 MHz spectrum.
44. TELUS supports the proposal to require disclosure of any of the types of arrangements listed in the examples in paragraph 67 of the consultation provided that disclosure must be limited to arrangements to specifically support the acquisition or use of 700 MHz spectrum.

45. TELUS agrees that neither roaming nor tower sharing agreements should be required to be disclosed to the Department for these purposes. Such arrangements are mandated by the government and therefore should not cause entities to be deemed associated. Operators have no choice but to enter these arrangements.

46. Any commercial documents supplied to the Department in the course of the Department’s review of associated entities status, should be treated with the utmost confidentiality. The associated entities review process must not serve to undermine the confidentiality of the market plans and the trade secrets of mobile operators. Any public disclosure should be tightly coordinated with the associated entities. Sensitive details should only ever be made public if they serve a public good or policy objective and even then should be limited to basic summary facts and only those facts that directly support the Department’s decisions on associated entities issues. In TELUS’ view, any information provided by associated entities would likely fall under the exemptions listed in section 20(1) of the *Access to Information Act*.

47. TELUS supports the proposal that associated entities may request to have the spectrum caps apply to them separately, based on an analysis of their association and subject to an intention to compete in the same licence service area.

48. The Department’s decisions recognize the fundamental principle that the adequacy of spectrum has to be measured relative to the number of customers it serves. As TELUS detailed at length in its previous 700 MHz submissions to SMSE-018-010, network sharing and subordinate spectrum licensing do not create new capacity. They simply create cost efficiencies and allow scarce spectrum resources to be used more efficiently. Improving the utilization of scarce public resources (spectrum) for the benefit of Canadians is a laudable objective. Cost efficiencies gained through such cooperation at the network level, with heated competition at the retail level should be encouraged.
49. TELUS supports the Department’s proposed obligations on licensees to serve rural areas that affect entities that hold or have access to two paired blocks of 700 MHz spectrum as more fully discussed in the corresponding section of our response.

50. TELUS agrees with the Department’s proposals regarding the process to seek to have caps apply to associated entities separately. One of the preconditions for the situation to occur is that the associated entities must compete vigorously in downstream markets. In order for the Department to make this assessment TELUS notes that the Competition Bureau has longstanding criteria that should be used in determining whether the entities are competing such as the tests introduced in Telecom Decision CRTC 94-19. These tests are well suited to determining whether operators are competing at the retail level. The various factors in the test are also explained in the Competition Bureau’s Merger Enforcement Guidelines.

51. The Department’s decisions correctly distinguish between common use and common ownership. This is critical. If one entity finds that it can better utilize its scarce spectrum resources in conjunction with another entity for the benefit of Canadians, then that should never preclude the entity from seeking its fair share of new spectrum to be allocated.

52. TELUS agrees with the Department’s proposal to leave the definition of “affiliated entities” essentially as it was for the AWS auction.

5.1 Prohibition of Collusion

Industry Canada is seeking comments on the rules prohibiting collusion that would apply to bidders in the 700 MHz auction.

53. TELUS fully supports the Department’s proposed updates to the rules prohibiting collusion that would apply to bidders in the 700 MHz auction.
6. Conditions of Licence for Spectrum in the 700 MHz Band

Industry Canada is seeking comments on its proposal to issue spectrum licences in the 700 MHz band with a 20-year licence term.

54. TELUS supports the proposed 20 year licence term and the proposed wording for this condition of licence.

Industry Canada is seeking comments on the proposed wording of the condition of licence related to the spectrum aggregation limits.

55. TELUS believes that some minor updates to the wording for the proposed condition of licence on spectrum aggregation limits would help improve clarity. TELUS therefore proposes the following slight modifications (which are bolded) of the proposed language to enhance its clarity:

The licensee must comply with the spectrum aggregation limits as follows:

- A limit of two paired frequency blocks in the 700 MHz band (blocks A, B, C, C1 and C2) is applicable to all licensees.

- A limit of one paired spectrum block within blocks B, C, C1 and C2 is applicable to all large wireless service providers. Large wireless service providers are defined as companies with 10% or more of the national wireless subscriber market share, or 20% or more of the wireless subscriber market share in the province of the relevant licence area.

The spectrum aggregation limits put in place for the 700 MHz auction will continue to be in place for five years following licence issuance. Therefore, no transfer of licences or issuance of new licences will be authorized that allows a licensee to exceed the spectrum aggregation limits during this period. Any change in ownership or control of a licensee that has the effect of granting a right or interest in a 700 MHz licence to another licensee in this band may be considered as a licence transfer for the purpose of this condition of licence whether or not the licensee name is changed as a result. The licensee must request approval by the Minister of Industry for any change that would have a material effect on its compliance with these spectrum aggregation limits. Such a request must be made in advance for any proposed transactions within its knowledge.
Industry Canada is seeking comments on the proposed wording of the condition of licence related to transferability and divisibility.

56. TELUS has several concerns with the Department’s proposed wording of the condition of licence related to transferability and divisibility.

57. TELUS believes that the title of the COL should be expanded to more accurately reflect the fact that the COL addresses subordinate licensing. TELUS recommends a COL title of “Licence Transferability, Divisibility and Subordinate Licensing”.

58. TELUS believes that, as written, the related but distinct concepts addressed in the COL are interwoven in the proposed language such that their clarity is compromised. TELUS therefore proposes the following rearrangement (and slight modifications which are bolded) of the proposed language to enhance its clarity:

**COL on Transferability, Divisibility and Subordinate Licensing**

The licensee may apply, in writing, to transfer its licence in whole or in part (divisibility), in both the bandwidth and geographic dimensions in accordance with Client Procedures Circular CPC-2-1-23, Licensing Procedure for Spectrum Licences for Terrestrial Services, as amended from time to time. Industry Canada’s approval is required for each proposed transfer, whether the transfer is in whole or in part. Industry Canada may define a minimum bandwidth and/or geographic dimension (such as the grid cell) for the proposed transfer.

The transferor(s) must provide an attestation and other supporting documentation demonstrating that all conditions, technical or otherwise, of the licence have been met. The transferee(s) must provide an attestation and other supporting documentation demonstrating that it meets the eligibility criteria, including documentation related to associates and affiliates demonstrating that the transfer is in accordance with any spectrum aggregation limits.

The transferee must satisfy all applicable conditions of licence including, rural deployment and general deployment requirements.

Licensees may also apply to use a subordinate licensing process. Industry Canada’s approval is required for each proposed subordinate licence. Subordinate licences will not count towards the subordinate licensee’s spectrum aggregation limit if the primary licensee and the subordinate licensee demonstrate to the satisfaction of Industry Canada that they will be competing in the licence area.
Industry Canada is seeking comments on the proposed wording of the condition of licence related to eligibility criteria.

59. The Department has proposed new wording for the eligibility criteria contained in the conditions of licence. Based on the description provided by the Department in the consultation and TELUS’ comparison of the current and proposed conditions of licence, the substance of the proposed change is the insertion of the word “applicable” when referring to the eligibility criteria in section 10(2) of the Radiocommunication Regulations. The remainder of the current condition of licence is unchanged.

60. As noted by the Department, the insertion of the word “applicable” is proposed because the Government of Canada has introduced changes to the foreign investment restrictions set out in the Telecommunications Act. These changes might then have effects on the eligibility criteria set out in section 10(2) of the Radiocommunication Regulations, meaning that the eligibility provisions in the condition of licence must refer to the “applicable” criteria. In light of the above, TELUS agrees with the proposed wording of the condition of licence related to eligibility criteria.

Industry Canada is seeking comments on the proposed wording of the condition of licence related to the treatment of existing spectrum users.

61. This proposed condition of licence relates to the decisions made by the Department in SMSE-002-12 about how existing services and devices, such as the broadcasting and broadcasting auxiliary services and low-power licensed devices such as wireless microphones that currently operate in the 700 MHz band are to be displaced by licensees following the 700 MHz auction. In particular, the Department issued decisions about when it will issue a displacement notice upon request by a licensee to low power television stations that continue to operate in that band and that low-power licensed devices, including wireless microphones, will only be allowed to operate in the bands 698-764 MHz and 776-794 MHz until March 31, 2013.
62. In light of the decisions from SMSE-002-12, the Department has now proposed the following condition of licence.

The licensee must comply with the displacement policies set out in SMSE-002-12, Policy and Technical Framework: Mobile Broadband Services (MBS) – 700 MHz Band, Broadband Radio Service (BRS) – 2500 MHz Band

63. TELUS supports the proposed conditions of licence to implement the Department’s previous decisions to allow for displacement of services that might prevent a licensee from using its 700 MHz spectrum.

64. The Department has proposed the following condition of licence related to 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.

65. This proposed condition of licence is materially the same as the current condition of licence regarding radio station installations that requires that licensees must ensure that each radio station is “installed and operated in a manner that complies with the Department's Client Procedures Circular CPC-2-0-03, Radiocommunication and Broadcasting Antenna Systems, as amended from time to time. As a result, TELUS supports the proposed condition of licence.

66. The Department has proposed the following condition of licence related to the provision of technical information.

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. 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.

67. The proposed condition of licence is virtually identical to a condition of licence contained in existing spectrum licences. TELUS supports the proposed condition of licence.

Industry Canada is seeking comments on its proposed condition of licence related to compliance with legislation, regulation and other obligations.

68. The Department has proposed the following condition of licence related to compliance with legislation, regulation and other obligations.

The licensee is subject to, and must comply with, the Radiocommunication Act, the Radiocommunication Regulations and the International Telecommunication Union’s Radio Regulations pertaining to its licensed radio frequency bands. The licence is issued on condition that the certifications made in relation to this licence are all true and complete in every respect. The licensee must use the assigned spectrum in accordance with the Canadian Table of Frequency Allocations and the spectrum policies applicable to these bands, as amended from time to time.

69. As noted by the Department in the consultation, there are no significant changes in the proposed condition of licence as compared to the existing condition of licence. TELUS supports the proposed condition of licence.

Industry Canada is seeking comments on the proposed condition of licence related to technical considerations, and international and domestic coordination.

70. The Department has proposed the following condition of licence related to 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 and Standard Radio System Plans, as amended from time to time. Where applicable, the licensee must use its best efforts to enter into mutually acceptable sharing agreements that will facilitate 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 with 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 to furnish all necessary technical data for each relevant site.

71. TELUS notes that the proposed condition of licence is largely the same as a condition of licence that is contained in existing spectrum licences. TELUS supports the proposed condition of licence.

Industry Canada is seeking comments on the proposed wording of the condition of licence related to lawful intercept requirements.

72. The Department has proposed the following condition of licence related to lawful intercept requirements.

A licensee operating as a service provider using an interconnected radio-based transmission facility for compensation must provide for and maintain lawful interception capabilities as authorized by law and in accordance with the Solicitor General's Enforcement Standards for Lawful Interception of Telecommunications, as 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. 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.

73. TELUS notes that this proposed condition of licence represents a significant change from the current lawful intercept condition of licence contained in existing spectrum licences. The most prominent change would impose the lawful intercept requirement on any licensee operating as a service provider “using an interconnected radio-based transmission facility for compensation,” as opposed to a licensee that “using spectrum for circuit-switched voice telephony systems.”
74. TELUS has reviewed and endorses the comments of the Canadian Wireless Telecommunications Association (“CWTA”) on this issue. As noted by the CWTA, the proposed change is a significant departure from the existing condition of licence and potentially forces several additional services to interception requirements. In addition, TELUS agrees with the CWTA that there has been no enabling legislation enacted by Parliament that would enable such services to be intercepted, though there is proposed legislation under consideration before Parliament. As such, TELUS supports the CWTA’s position that the condition of licence should be based on the legislative requirements that are in force at the time the licence is issued. This condition of licence can be subsequently amended to reflect any future legislation that might be enacted that changes the lawful intercept requirements.

Industry Canada is seeking comments on the proposed condition of licence related to the research and development requirement.

75. The Department has proposed the following condition of licence related to the research and development requirement.

The licensee 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 Guidelines for Compliance with the Radio Authorization Condition of Licence Relating to Research and Development (GL-03).

76. This proposed condition would continue to impose upon licensees a requirement to invest the 2% of adjusted gross revenues from spectrum operations in research and development
(“R&D”) activities related to telecommunications. TELUS has reviewed and endorses the comments of the CWTA on this issue.

77. As noted by the CWTA, this R&D requirement is an artifact from a time when there was little or no R&D in wireless infrastructure in Canada, a situation that is certainly not the case today. Canada is a world leader in deployment of advanced wireless networks and customers in Canada are massive consumers of wireless data, with extremely strong smartphone penetration. As a result, as noted by the CWTA, licensees need as much flexibility as possible to deploy investments as they choose in light of market conditions, rather than being forced to comply to invest 2% of revenues in a prescribed list of R&D activities.

78. TELUS also wholeheartedly supports the CWTA when it asks for an Industry Canada decision on DGRB-001-09 where comments were sought on the continued need for the R&D condition of licence. It is time for the Department to issue a decision and remove this condition of licence from current and future spectrum licences.

79. TELUS recognizes the importance of rural deployment in government policy and agrees that prime rural spectrum must be deployed in a timely manner for the benefit of Canadians. TELUS supports the intent behind decisions in SMSE-002-12 regarding rural deployment. TELUS supports the “two paired block” trigger for the most stringent rural deployment requirements in the band even though it is primarily if not solely targeted at established players. However, TELUS believes that stricter deployment requirements are necessary in order to ensure that the largest number of Canadians have access to as many competitive choices as possible and that this valuable spectrum is commercially deployed as expeditiously as possible. TELUS requests that the Minister address certain unintended gaps in the deployment requirements that would excuse certain existing and potential
spectrum holders from any meaningful deployment requirement in this very scarce and valuable band.

80. TELUS supports Decision B4-2 of SMSE-002-12 as it pertains to established mobile operators with extensive existing HSPA network footprints. TELUS continues to believe that Canadians would be better served if these deployment requirements were to be assessed after three years (as TELUS recommended in SMSE-018-10) versus five and seven years as the Department has decided provided that the same milestones applied to all prime spectrum per TELUS’ recommendation below. However, TELUS accepts the Department’s rationale as explained in SMSE-002-12 paragraph 163 and accepts that this is a published decision that the Department may not want to update or amend.

81. TELUS does not support Decision B4-2 of SMSE-002-12 as it pertains to mobile operators without extensive existing HSPA network footprints or in fact, no HSPA footprint as of March 2012. The effect of this construction of the Condition of Licence, which TELUS considers must be an oversight or unintended, would excuse many mobile operators, other than the established ones from any meaningful build requirement. TELUS does not believe that this unintended result accords with the Department’s objectives for this valuable and scarce spectrum. TELUS’ proposed solution to this is detailed in TELUS’ proposals for general deployment requirements in the upcoming paragraphs. TELUS outlines a simple deployment requirement framework that TELUS believes is better for Canadian mobile broadband users, fairer amongst mobile operators and better equipped to discourage speculative investment in spectrum.

82. Subject to the Department’s general deployment requirements proposals being updated along the lines of TELUS’ recommendations, TELUS supports the intent, proposed wording and the proposed interpretation of the wording of the condition of licence regarding rural deployment:

   Where a licensee holds a licence for two or more paired blocks of 700 MHz spectrum in a licence area, or has access to two or more paired blocks of 700 MHz spectrum in a licence area either directly or indirectly, that licensee must deploy 700 MHz spectrum:
(a) to cover 90% of the population of its HSPA network footprint as of March 2012, within five years of the issuance of the initial 700 MHz licence; and

(b) to cover 97% of the population of its HSPA network footprint as of March 2012, within seven years of the issuance of the initial 700 MHz licence

Industry Canada is seeking comments on the application of the general deployment condition of licence as stated above. Specifically, comments are sought on:
- the population coverage, as specified in Table 3, for each licence service area; and
- the time frame proposed whereby the requirement must be met.

83. TELUS agrees with the Department in the consultation in paragraph 122 that the general deployment requirement must:

“ensure that the 700 MHz spectrum, a highly valued and limited public resource, is deployed in a timely manner”; and

“deter the acquisition of spectrum licences by speculators and those whose intent is to prevent access to the spectrum by their competitors”.

84. TELUS sees the logic in synchronizing the population coverage based deployment requirement levels of AWS spectrum with MBS spectrum just as the Department is synchronizing HSPA deployment levels with rural deployment requirements for MBS spectrum. However the Department’s proposal in paragraph 123 of the consultation that, for MBS spectrum, AWS spectrum population coverage levels “be required within 10 years of the licence issuance to allow market forces to determine the best pace of deployment” runs counter to the Department and Minister’s objective to ensure that competition, investment and innovation using this spectrum is delivered to the broadest number of Canadians, in a timely fashion.

85. TELUS thus has concerns with the Department’s proposed general deployment requirements and strongly recommends that the Department settle on more ambitious and workable requirements such as detailed below. Prior to outlining the TELUS proposed general deployment requirements, we discuss a number of issues and unintended consequences that could and would arise from the Department’s published rural and proposed general deployment requirements:
a. There is no meaningful deployment requirement for new or newer licensees obtaining up to two paired blocks of prime spectrum

b. There is an inadequate deployment requirement for an AWS operator obtaining up to two paired blocks of prime spectrum

c. There is an inadequate deployment requirement for an established operator obtaining prime spectrum

d. The proposed deployment requirements don’t achieve the objective of encouraging competition, investment and innovation to the broadest possible number of Canadians in a timely fashion

e. The proposal does not differentiate between high band urban focused deployment requirements such as those developed for AWS spectrum and deployment requirements for low band spectrum particularly suited for economic coverage

f. The proposal does not adequately balance the build/roam incentives to ensure that operators are appropriately incented to build out to the greatest extent possible on their own spectrum

g. The proposal does not adequately and in advance establish what remedial action the Department will take in a situation where a spectrum licensee fails to meet its deployment requirements

TELUS has a proposal for a deployment requirements framework that addresses all of these concerns. First, we elaborate on these issues.

There is no meaningful deployment requirement for new or newer licensees obtaining up to two paired blocks of prime spectrum

New or newer licensees, such as Bragg or Shaw who have not deployed on their AWS holdings can warehouse 700 MHz spectrum (up to and including two prime paired blocks) for up to 10 years without meaningfully deploying in the 700 MHz band. The proposed rules do not address or discourage this potentiality which is contrary to the objective of
seeing this spectrum deployed to broaden competition, investment and innovation in a timely manner. The Department’s proposal will not serve to deter the acquisition of spectrum licences by speculators and those whose intent is to prevent access to the spectrum by their competitors.

**There is an inadequate deployment requirement for an AWS operator obtaining up to two paired blocks of prime spectrum**

88. AWS operators, such as Wind, Mobilicity, Public Mobile and Videotron can warehouse prime 700 MHz spectrum for up to 10 years without meaningfully deploying in the 700 MHz band. AWS operators that hold or have access to two paired blocks need only continue to target the top urban markets included in their initial deployments as of March, 2012. The proposed rules do not address or discourage these potentialities which are contrary to the objective of seeing this spectrum deployed in a timely manner to broaden competition, investment and innovation. The Department’s proposal will not serve to deter the acquisition of spectrum licences by speculators and those whose intent is to prevent access to the spectrum by their competitors.

**There is an inadequate deployment requirement for an established operator obtaining prime spectrum**

89. The proposed general deployment requirements inadequately address the case where an established operator only holds or has access to one paired block of prime spectrum and is not caught by the rural deployment requirements. In that case, the established operator need not build out on 700 MHz for ten years. Although the scenario where an established licensee did not build out is unlikely given the significant effort and capital that has been dedicated to covering 97+% of Canadians, the proposed rules do not make sense for prime low band spectrum which is a unique and highly valued limited public resource. There should be a stringent deployment requirement for all prime spectrum, irrespective of whether an operator holds a single or two paired blocks.
The proposed deployment requirements don’t achieve the objective of encouraging competition, investment and innovation to the broadest possible number of Canadians in a timely fashion

90. In TELUS’ view, both the rural and general deployment timelines are not ambitious enough. It has taken a decade to clear TV broadcasters and three years of consultation to get this crucial 4G LTE band into the hands of operators by 2014. The Department’s proposals mean that only established licensees, and only in the case where they have access to two blocks, need build out this spectrum beyond top urban markets before 2024. TELUS submits that the industry can do better with this unique spectrum and that customers in all areas across Canada demand and deserve an accelerated deployment.

91. Last year as part of its input to SMSE-018-11, TELUS recommended much more stringent build requirements than the Department is now proposing. TELUS recommended that all 700 MHz spectrum be subject to a three year deployment requirement in every tier 3 service area, regardless of the tier size on which the spectrum was licenced.

The proposal does not differentiate between high band urban focused deployment requirements such as those developed for AWS spectrum and deployment requirements for low band spectrum particularly suited for economic coverage

92. TELUS submits that the Department should be differentiating between high band urban focused deployment requirements such as those developed for AWS spectrum and deployment requirements for low band spectrum particularly suited for economic coverage. The Department’s proposals are based on AWS spectrum which is high band spectrum. AWS population coverage metrics do not make sense for prime low band spectrum, sought for its ability to economically enable wide area coverage.

93. There is a logic however in referring to AWS deployment requirements to understand the network footprints that AWS entrants are required to build to within 8 years and then using these to dictate the prime 700 MHz network coverage requirements of AWS entrants as a first step for the purposes of paralleling the stringent deployment requirements for mature incumbent operators based on their HSPA network footprints. But there must be a second stage that goes beyond AWS deployment requirement levels.
The proposal does not adequately balance the build/roam incentives to ensure that operators are appropriately incented to build out to the greatest extent possible on their own spectrum

94. The proposed general deployment requirements do not strike a reasonable balance with the Department’s mandated roaming rule updates proposed in DGSO-001-12. There is an inextricable link between the two government policy levers – mandated roaming requirements and deployment requirements. The Department needs to balance the contradictory goals of (i) mandating support for carriers (and their customers) where such carriers have not invested in RAN infrastructure via mandated roaming and (ii) encouraging investment in RAN infrastructure via spectrum deployment requirements. The MBS spectrum deployment requirements do not effectively counterbalance the Department’s proposed extensions to its mandated roaming policy in DGSO-001-12.

The proposal does not adequately and in advance establish what remedial action the Department will take in a situation where a spectrum licensee fails to meet its deployment requirements

95. The proposed rural and general deployment requirements do not provide predictability or certainty with respect to what remedial action the Department will take when a licensee fails to live up to its Conditions of Licence related to deployment.

TELUS’ Proposal for MBS Deployment Requirements

96. There are four elements to TELUS’ proposal that as a package address the concerns listed above

   a. Published Rural Deployment Requirements - UNCHANGED
   b. NEW General Deployment Requirement for all prime MBS spectrum
   c. Proposed General Deployment Requirement UNCHANGED but applicable only to Lower A, D, and E blocks
   d. NEW clauses to do with breach of deployment requirements Conditions of Licence
Rural Deployment Requirements

97. As previously discussed, TELUS supports the published rural deployment requirements provided that they are supplemented by a new general deployment requirement for all prime MBS spectrum. (And as previously discussed, TELUS would not be opposed to accelerating the rural deployment requirement timelines to three and five years.)

General Deployment Requirement for all prime MBS spectrum

98. TELUS proposes a new general deployment requirement for all prime MBS spectrum that requires operators that hold or have access to prime MBS spectrum to meet the population coverage based deployment requirements proposed by the Department but within five years, not ten years. Further TELUS proposes increased population coverage level requirements at seven years to reflect that this is prime coverage spectrum facilitating economic footprint expansion.

99. The rationale for the specification in the proposal is well founded. TELUS notes that the AWS Entrants’ eight year AWS deployment requirements are coming due in the 2017 timeframe. MBS licences will be issued in the 2014 timeframe. AWS entrants’ HSPA network footprints are required to meet or exceed the AWS population coverage levels by 2017. To meet the five year prime MBS population coverage proposed by TELUS, AWS entrants would be simply required to overlay their minimum required HSPA footprints with a 700 MHz network, in a similar way that incumbents with two paired blocks are required to overlay their near ubiquitous HSPA networks. The rationale for the increased population coverage requirement at seven years is that prime MBS spectrum is ideal spectrum for economic footprint expansion. 700 MHz network deployment on prime blocks should not stop at urban high band deployment levels dictated for AWS spectrum. The proposed deployment levels at seven years represent reasonable targets based on current AWS entrant urban deployment levels in addition to what TELUS believes would represent reasonable milestones in rural areas given the superior propagation characteristics of the spectrum to ensure it is put to effective use to address broadband requirements in less densely populated regions.
General Deployment Requirement for non-prime MBS spectrum

100. TELUS supports the Department’s proposed general deployment requirements only for the Lower A, D, and E blocks given the ecosystem challenges associated with these blocks.

Breach of Deployment Requirements COL clauses

101. TELUS proposes two clauses that would be invoked if an MBS licensee did not adhere to the deployment requirements. Firstly, if an MBS licensee breached the deployment requirements via insufficient investment (i.e., it had built out but had not built out extensively enough to meet the conditions), it would be mandated to sublicense its MBS spectrum on commercial terms anywhere where it sought an in-territory roaming agreement. Secondly, if an MBS licensee breached the deployment requirements via no investment (i.e., it had not built out and marketed their service at all), it would be forced to sell their MBS spectrum on the secondary market within a given timeframe (e.g., one year) or return it to the Department for reallocation.

102. The benefit of these proposals are that they provide ex ante certainty and transparency as to the remedial action the Department will employ and give effect to the fundamental objectives of the Department and the Government to encourage timely deployment in order to benefit the broadest possible number of Canadians and will further encourage competition, innovation and investment.

103. The following two tables detail TELUS’ proposed deployment requirements framework.
Table 1 – TELUS Proposed Deployment Requirements Framework

<table>
<thead>
<tr>
<th>Condition</th>
<th>End of Year 5</th>
<th>End of Year 7</th>
<th>End of Year 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold or have access to 2 or more paired blocks</td>
<td>90% of HSPA network footprint (no change)</td>
<td>97% of HSPA network footprint (no change)</td>
<td>n/a</td>
</tr>
<tr>
<td>Hold or have access to 1 or more prime blocks (See following table)</td>
<td>Population coverage per AWS metric (20-50% based on region) (accelerated)</td>
<td>Expanded AWS population coverage (25-70% based on region) (new)</td>
<td>n/a</td>
</tr>
<tr>
<td>Lower A, D, E blocks</td>
<td>n/a</td>
<td>n/a</td>
<td>20 – 50% pop coverage (no change)</td>
</tr>
</tbody>
</table>

### Supplemental Clauses (new)

- **Breach of deployment requirements via insufficient investment**
  Not use it or lose it like RP-019 (for Cellular 850). If 700 MHz licensee seeks (or seeks to continue) an in-territory roaming agreement on 700 MHz, roaming provider (or highest bidder for new roaming / subordinate licencing deal) has right to mandated sublicensing of roamers’ 700 MHz spectrum in the roaming territory on commercial terms for at least the life of the roaming agreement.

- **Breach of deployment requirements without material network and marketing investment**
  Any 700 MHz licensee who fails to meet the above deployment requirements and who has not yet built out any 700 MHz network and marketed it must sell their spectrum on the secondary spectrum market within a set time (e.g. 1 year) or face an Industry Canada recall.
Table 2 – TELUS Proposed Deployment Requirements: Population Coverage for Prime MBS Spectrum

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Deployment Floor – Prime MBS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 Years</td>
</tr>
<tr>
<td>2-01 Newfoundland and Labrador</td>
<td>30%</td>
</tr>
<tr>
<td>2-02 Nova Scotia and P.E.I.</td>
<td>30%</td>
</tr>
<tr>
<td>2-03 New Brunswick</td>
<td>40%</td>
</tr>
<tr>
<td>2-04 Eastern Quebec</td>
<td>50%</td>
</tr>
<tr>
<td>2-05 Southern Quebec</td>
<td>50%</td>
</tr>
<tr>
<td>2-06 Eastern Ontario and Outaouais</td>
<td>50%</td>
</tr>
<tr>
<td>2-07 Northern Quebec</td>
<td>30%</td>
</tr>
<tr>
<td>2-08 Southern Ontario</td>
<td>50%</td>
</tr>
<tr>
<td>2-09 Northern Ontario</td>
<td>50%</td>
</tr>
<tr>
<td>2-10 Manitoba</td>
<td>50%</td>
</tr>
<tr>
<td>2-11 Saskatchewan</td>
<td>40%</td>
</tr>
<tr>
<td>2-12 Alberta</td>
<td>50%</td>
</tr>
<tr>
<td>2-13 British Columbia</td>
<td>50%</td>
</tr>
<tr>
<td>2-14 Yukon, NWT and Nunavut</td>
<td>20%</td>
</tr>
</tbody>
</table>
Industry Canada is seeking comments on the proposed wording of the condition of licence related to mandatory antenna tower and site sharing. Comments on the specifics of the requirements should be submitted through the process announced through Canada Gazette notice DGSO-001-12.

104. The Department has proposed the following condition of licence related to mandatory roaming.

Licensees 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.

105. TELUS supports the proposed condition of licence. TELUS has provided comments about the proposed mandatory antenna tower and site sharing requirements as part of the consultation announced in Canada Gazette notice DGSO-001-12.

Industry Canada is seeking comments on the proposed wording of the condition of licence related to mandatory roaming. Comments on the specifics of the requirements should be submitted through the process announced in Canada Gazette notice DGSO-001-12.

106. The Department has proposed the following condition of licence related to mandatory roaming.

Licensees 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.

107. TELUS supports the proposed condition of licence. TELUS has provided comments about the proposed mandatory roaming requirements as part of the consultation announced in Canada Gazette notice DGSO-001-12.

Industry Canada is seeking comments on the proposed condition of licence related to the requirement for annual reporting.

108. TELUS notes that the proposed condition of licence for 700 MHz band licences are very similar to what is contained in current licences. TELUS appreciates that the Department
has modified the current reporting requirement in recent years for other spectrum licences as a means to reduce the information gathering by licensees. For example, the Department has now removed the requirement for an auditor’s statement to accompany the research and development expenditures for existing licences. Reducing reporting requirements is very beneficial to licensees given that all reporting imposes significant overhead on licensees, so the Department must be certain that the benefits to reporting outweigh the costs.

109. In light of that, it is TELUS’ position that this annual reporting requirement can be streamlined even further. First, regarding spectrum usage, requiring licensees to give a report on implementation and usage “within the area covered by the licence” is an onerous requirement for licensees with overlapping licences issued at varying tier levels because it requires the licensee to produce significant statistics on usage. Moreover, reporting at the licensed area level is often not meaningful because it is the overall usage by the licensee across a larger geographical area that demonstrates a more complete picture as to how the spectrum is being used to date. As such, TELUS requests that annual reporting for all spectrum licences, including spectrum in the 700 MHz band, be made at the most rolled up tier level that an operator holds contiguous in with additional disclosure detail made available to the Department on an as required basis.

110. Also, TELUS notes that the research and development reporting requirement is linked to the research and development condition of licence. TELUS above has agreed with the proposal of the CWTA that this condition of licence is antiquated and no longer necessary based on the competitiveness of Canada’s wireless marketplace. As a result, if the Department were to remove the research and development condition of licence, the requirement to report on such expenditures on an annual basis would be unnecessary
7. Auction Process

7.2 Opening Bids

Industry Canada is seeking comments on the proposed opening bids as presented in Table 4.

111. Opening bids and reserve prices have historically been set at the same amount in auctions held by the Department. There is no reason why these need to be the same. The FCC defined aggregate block reserve prices in its Auction 73 of 700 MHz spectrum in 2008 that were roughly 10 times higher than the sum of the opening bids that the FCC set.

112. TELUS supports the proposed opening bids as they pertain to the reserve prices of licences. To be specific, TELUS agrees that the reserve prices should be the amounts listed as opening bids in Table 4 of the consultation representing an aggregate reserve price of $897,324,000 for all licences.

113. TELUS wonders if better price discovery would be facilitated if the opening bids were reduced from these reserve prices by say one half (while the proposed reserve prices themselves were not reduced). To be specific, TELUS suggests that opening bids totaling, for example, $448,662,000 would allow for a better price discovery process.

7.3 Proposed Eligibility Points for the 700 MHz Spectrum Auction

114. Industry Canada is seeking comments on the proposed eligibility points for spectrum licences in the 700 MHz band, as outlined in Table 5.

115. TELUS has concerns with one aspect of, but otherwise supports, the eligibility points proposed in Table 5.

116. Two 5 MHz blocks (as a paired block) in any service area is not the same number of eligibility points as two single 5 MHz (unpaired) blocks in the same service area, except for 4 of the 14 service areas. In 3 of the remaining 10 service areas, a paired block is less eligibility points than two unpaired blocks. In the other 7 of the remaining 10 service areas, a paired block is more eligibility points than two unpaired blocks.
117. In essence the Department’s proposed eligibility points say

- sometimes 10 MHz of TDD is equal to 10 MHz of FDD
- sometimes 10 MHz of TDD is greater than 10 MHz of FDD
- other times 10 MHz of TDD is less than 10 MHz of FDD
- on average 10 MHz of TDD is much less than 10 MHz of FDD

118. In TELUS’ view, this situation does not facilitate an efficient auction process and TELUS recommends that all TDD blocks be represented by half the eligibility points of the corresponding FDD blocks. Given the differences in spectrum aggregation limits, “large carriers” have less flexibility to move bids between blocks while preserving eligibility than other bidders and this would help alleviate this issue in part.

119. TELUS can follow the Department’s decision process that delivered these varying results and beyond minor rounding type issues the predominant driver of these results is the decision to scale FDD reserve prices in top markets but not to similarly scale TDD in top markets (per paragraphs 135 and 136 of the consultation) and then the decision to base eligibility points on these so developed reserve prices.

120. TELUS is not concerned about the impact of this decision process in paragraphs 135 and 136 on reserve prices (but would support any adjustment to reserve prices that the Department deemed necessary in line with any adjustment to eligibility points.) TELUS is concerned about the impact of this decision process in paragraphs 135 and 136 (scaling FDD but not TDD spectrum in top markets) when it flows to eligibility points which in turn impacts bidder movement and flexibility between equal amounts of spectrum in any service area.

121. TELUS recommends that the Department round up all FDD eligibility point levels to be divisible by 2 (taking the total for a one paired block nationally to 1228 from 1220 because 8 service areas would need to be rounded up by 1) and then make the corresponding TDD blocks in each service area exactly half the eligibility points such that one TDD block nationally would be 614 eligibility points.
7.4 Pre-auction Deposits

Industry Canada is seeking comments on the proposed pre-auction deposits as outlined.

122. TELUS supports the deposit process outlined as well as the proposed pre-auction deposit level of $130,000 per eligibility point which essentially means that an applicant must put up a deposit approximately equal to the reserve price of the spectrum sought.

10. Licence Renewal Process

Industry Canada is seeking comments on the proposed renewal process for spectrum licences in the 700 MHz band.

123. TELUS has concerns with one aspect of, but otherwise supports, the proposed renewal process for spectrum licences in the 700 MHz band.

124. The Department refers to annual fees upon renewal in paragraph 153 of the consultation:

“As noted in the FSAC, licence fees that reflect some measure of market value will apply to licences issued through a renewal process.”

125. The “FSAC” reference is to the updated Framework on Spectrum Auctions in Canada released March 14, 2011, section 3.6:

“For licences issued through a renewal process, licence fees that reflect some measure of market value will apply.”

126. On March 14, 2011, the government also released DGSO-002-11, the Cellular and PCS Renewal Decision, just as licence terms were expiring:

“At the time that the renewal consultation paper was issued, it was intended that the fee order would be reviewed and possible fee changes implemented. However, in November 2010, the Minister announced that fees for cellular and PCS licences would be frozen for the time being. Until further notice, the existing annual licence fee will apply consistently to all cellular and PCS licences irrespective of the initial licensing process. This includes licences issued through the renewal process which were initially issued through the auction process. The Minister may review and amend the fees during the licence term after consulting with licensees.”
TELUS submits that there must be a separate and thorough consultation conducted with respect to the determination of annual licences fees on mobile spectrum as well as how to apply and the level at which annual spectrum fees should apply to auctioned spectrum licences at renewal.

A consultation specifically on these spectrum fee issues originally contemplated by the Department in 2009 was never issued. At the time, the Minister determined in November 2010 that annual licence fees were to remain indefinitely frozen at current rates (2nd highest in the world and 38 times higher than in the US) and that until further notice annual fees would apply to auctioned spectrum upon renewal, a step other jurisdictions had not taken.

Under this interim fee structure, in 2019, the AWS band would require licensees to remit some $104 million per annum to the government in annual licence fees of which over $46 million would come from AWS set aside licensees.

TELUS notes that the phrase “some measure of market value will apply” underscores the need for a broad consultation on this issue at the earliest opportunity given the Department’s uncertainty on this point. In TELUS’ view, freezing rates at current levels for any further prolonged period of time is inappropriate given the very high fee levels in place and the trends with respect to the fee issue for both granted and auctioned spectrum in other jurisdictions.

TELUS maintains that the industry and the Department still need to go through the intended consultation process at the earliest opportunity in order to properly establish fees, if any fees are justified, particularly for auctioned spectrum in order to come to a well measured resolution.

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