Rogers Communications
333 Bloor Street East
Toronto, Ontario M4W 1G9
Tel. (416) 935-2525
Fax (416) 935-2523
rwi_gr@rci.rogers.com

Ken Engelhart
Senior Vice-President - Regulatory

July 25, 2012

Sent via email: spectrum.auctions@ic.gc.ca

Manager, Spectrum Auctions
DGSO
Industry Canada
300 Slater Street
Ottawa ON K1A 0C8

Re: *Canada Gazette, Part I*, May 5, 2012, Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band (DGSO-002-12)

Pursuant to the procedures outlined in the above noted document, attached are Reply Comments of Rogers Communications Partnership ("Rogers").

The document is being sent in Adobe Acrobat X Pro Version 10. Operating System: Microsoft Windows XP.

Yours very truly,

Kenneth G. Engelhart

Attach.

Reply Comments of

Rogers Communications Partnership

Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band

(DGSO-002-12)

July 25, 2012

Table of Contents

Executive Summary

E1. Rogers remains generally supportive of Industry Canada's decision to move from a Simultaneous Multi Round Ascending ("SMRA") format to a Combinatorial Clock Auction ("CCA"). It is clear from the submissions that many prospective auction participants have concerns regarding the auction format's features. Industry Canada has adopted several unique rules creating uncertainty for wireless carriers attempting to value and obtain badly needed spectrum licences.

E2. Rogers is particularly disadvantaged by elements of the auction format. The asymmetric spectrum caps combined with the proposed activity rules, eligibility requirements, revealed preference constraints and associated entities rules work together to assist new entrants and associated incumbents like Bell and TELUS while leaving Rogers handcuffed.

E3. Rogers therefore re-iterates its recommendations from its initial submission. While the CCA format including the supplementary round should be retained, the auction rules should be more consistent with the CCAs that have already been held in Europe. This includes modifying the activity and second price rules to avoid vexatious bidding and other forms of non-truthful bidding and gaming. These changes will also place bidders on a level playing field and address many of the concerns raised by regional carriers about the CCA format.

E4. Bidders should also not be allowed to make bids whose sole purpose is to harm other bidders. This includes making bids in both the upper and lower blocks in the same round as well as making bids for the A and D/E blocks without also bidding for a B/C licence. There are no technical or commercial purposes behind such bids.

E5. Furthermore, many parties have proposed that Industry Canada should amend its auction cap rules. If the auction cap rules can be amended in the current proceeding then, large wireless carriers, whether associated with other carriers or not, should be allowed to bid upon both of C1 and C2 but may only obtain one of B or C. Large associated entities would similarly be restricted to a single 10 MHz cap in the lower band. Such a change would potentially increase the price for the upper C block, balancing the prices between the upper and lower bands, while still preserving at least one block in every region for a new entrant.

E6. Equally important, Industry Canada needs to correct its associated entity and collusion rules in order to preserve auction integrity. Most submissions were quite vocal in their opposition to the watered down rules. Auction participants need full disclosure of existing bidder relationships to effectively bid in the auction. At the

same time there cannot be any communication between bidders, either before or after the application date that allows them to coordinate their bids. It is not surprising that Bell and TELUS, who already share a joint network, were two out of only three submissions asking for greater communication between associated entities. Joint network opportunities however must be developed without undermining the auction's fairness.

E7. It is of utmost importance that no bidder has a significant informational advantage regarding the bidding behaviour of other bidders. Uncertainty about the status of associated bidders, such as Bell and TELUS, puts the integrity of the auction at risk even before the process has fully started. If Industry Canada allows associated entities to bid separately in the auction, it must take several mitigating measures. It must:

a) provide clarity over the rules regarding affiliation, association and collusion well in advance of the auction;
b) guarantee full disclosure of the relevant agreements between bidders;
c) prohibit any coordination of bidding strategies between associated entities prior to and during the auction; and
d) limit transparency during the clock rounds (i.e. only release round prices and aggregate demand).

E8. To further improve the auction, Industry Canada should also facilitate switching. The number of eligibility points should therefore be rebalanced between the paired blocks (e.g. A, B, C) and the unpaired blocks into a 2:1 relationship. That way bidders can move from the A block to the D/E blocks and vice versa seamlessly.

E9. Despite these concerns and calls by some submissions, reverting back to an SMRA is not an option. Neither is the elimination of the supplementary round, a key component of the CCA. There remain too many flaws and risks, particularly aggregation risk, to return to the old format. This is especially true in light of all the gaming activity that occurred during the AWS auction.

Introduction

2. Rogers Communications ("Rogers") welcomes the opportunity to reply to the comments filed by other parties in response to Industry Canada's *Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band - DGSO-002-12* ("the Consultation Paper").

3. Rogers stated its positions on all of the issues raised in the Consultation Paper in its comments of June 25, 2012. This reply is limited to comments on proposals made by other parties. Failure to address any specific issue raised by other parties should not be taken by the Department as acquiescence with the position.

Rogers Reply to Comments of Other Parties

Industry Canada Section 4: Auction Format and Rules

General Comments on the Proposed Auction Rules

4. In our comments, Rogers explained that we are generally supportive of the move to a CCA format for the upcoming 700 MHz auction. However, we identified a number of significant concerns with the detailed proposals set forth in the Consultation Paper. Among other things, we explained that the combination and interworking of the proposed asymmetric spectrum caps, associated entities and collusion rules, and revealed preference and activity rules will uniquely constrain and harm Rogers, reduce demand for prime spectrum in the upper band, increase opportunities for vexatious bidding, distort prices, and result in inefficient outcomes.

5. Taken together, the modifications that Rogers has proposed will partially ameliorate the significant issues that Rogers has identified. It is important that Industry Canada take a comprehensive view as to what measures are necessary to improve the auction.

<u>Adoption of a Customized CCA Format</u>

6. Rogers is pleased to find wide agreement with many of our positions in the comments filed by other parties. In particular, many respondents voiced concerns similar to Rogers' concerning:

    a) asymmetric definition of spectrum caps and their consequences;
    b) uncertainty surrounding the rules for associated entities in the auction;
    c) spectrum packaging and resulting assignment options; and
    d) opportunities for vexatious bidding in the supplementary bids rounds.

7. As set out in its comments, Rogers generally supports the use of a CCA format for the 700MHz auction. Unlike the previous SMRA format used by Industry Canada, the CCA has the potential to create fair and undistorted competition between bidders with different objectives, including national bidders aggregating many blocks, regional bidders aggregating a smaller number of blocks, and local bidders only seeking licences in very specific regions.

8. However, Rogers raised a number of concerns in relation to the asymmetry between different bidders, and the extent to which the specific auction rules proposed by Industry Canada could facilitate vexatious bidding by parties wishing to exploit this asymmetry. Rogers has made a number of recommendations that would, to some extent, mitigate these concerns. However, the root cause of this harmful asymmetry is the very inconsistent treatment of bidders in terms of the proposed spectrum caps in combination with the proposed treatment of associated entities.

9. We note that a number of parties share Rogers' concerns in this regard.

Asymmetric Spectrum Caps

10. As discussed in Rogers' comments, the spectrum caps proposed by Industry Canada create asymmetries between large and small bidders, and between large bidders with and without pre-auction understandings or agreements on spectrum sharing.

11. The asymmetry introduce by the proposed spectrum caps has the peculiar effect of exposing bidders who are subject to the "large wireless provider" cap of one block of prime spectrum to the risk of being exploited through strategic bidding. This happens because bidders who are subject to the tighter cap on premium blocks are effectively unable to move between the lower band and the upper band and obtain more than a single orphaned prime block.

12. At the same time, large wireless providers who are associated bidders will be able to effectively circumvent this constraint under the proposed rules governing associated entities. They would be able to bid individually subject to individual caps and would be able to make effective use of the two blocks in the upper band.

13. In our first round comments, we stated that the auction policy should have addressed this matter. If Industry Canada wanted to apply a tighter cap to larger bidders, it should have applied this cap consistently for large wireless providers, large entrants and associations of large wireless providers.

14. To prevent harmful asymmetries between large bidders without spectrum sharing agreements and associated bidders who are allowed to bid separately under individual caps, the additional cap for large bidders could have allowed all bidders (rather than only associated bidders) to acquire two blocks in the upper part of band. This would have been the most appropriate solution to the problems identified. The cap for large bidders would therefore be modified to 10 MHz for the B/C blocks and 20 MHz for the C1/C2 blocks. This would still achieve Industry Canada's objectives for a cap without impeding switching between the upper and lower bands. This in turn would reduce the risk of strategic bidding and create more effective and symmetrical competition for spectrum amongst all bidders regardless of their situation.

15. More symmetric caps for large operators and associations of large operators would also help to maintain the price balance between comparable packages. We note that a number of parties proposed changes to the auction cap rules in their first round comments. If Industry Canada intends to make changes to these rules in the current proceeding, it should make the changes proposed by Rogers. Failing the implementation of symmetric caps, Industry Canada must take other precautions to mitigate the harmful effects of the asymmetries between different bidders. Bidders should not be allowed to place bids for packages that include upper blocks at the same time as lower blocks, or for packages that include the A and D/E blocks without also including bids for one or more of the B/C blocks.

Associated Entities and Coordination During the Auction

16. A crucial and widely shared concern about Industry Canada's proposals is the uncertainty over the treatment of associated entities. It is not surprising that, in their submissions, Bell and TELUS favour very lenient rules and maximum flexibility for associated entities.[1] They also argue that a considerable degree of discretion should be exercised by Industry Canada and that very little ex-ante disclosure would be required. However, most other respondents, including Rogers, are justifiably concerned about the implication that the lax rules proposed by Bell and TELUS could have for the integrity of the auction.

17. As we stated in our comments, it is of utmost importance that no bidder has a significant informational advantage regarding the bidding behaviour of other bidders. Uncertainty about the status of associated bidders, such as Bell and TELUS, puts the integrity of the auction at risk even before the process has fully started.

[1] Bell Mobility Comments, paragraph 47 and TELUS Comments, paragraph 38.

18. As submitted by Cogeco, Eastlink, Mobilicity, Public Mobile[2] and Rogers, associated bidders should not be allowed to bid together under a double cap.

19. If Industry Canada allows associated entities to bid separately in the auction, it must take several mitigating measures. It must:

    a) provide clarity over the rules regarding affiliation, association and collusion well in advance of the auction;
    b) guarantee full disclosure of the relevant agreements between bidders;
    c) prohibit any coordination of bidding strategies between associated entities prior to and during the auction; and
    d) limit transparency during the clock rounds (i.e. only release round prices and aggregate demand).

20. Rogers strongly disagrees with Bell and Globalive regarding what constitutes an association and their position that the disclosure of a minimal amount of information by associated entities is sufficient to ensure symmetry between bidders in the auction.[3] In our view, Industry Canada must take a precautionary approach in this regard, ensuring that information disclosure is extensive and limited only for the most compelling reasons of public interest.

21. Rogers agrees with the many submissions that agreements on tower sharing and joint equipment purchases need to be excluded from the definition of "association". Rogers agrees with Eastlink that it is the substance of the agreement that matters, not its form.[4]

General Comments on the Proposed CCA Format

22. We note that a number of respondents have expressed concerns about the complexity of the proposed CCA format, and made proposals for how this might be reduced, or how the impact might be mitigated. For example, Mobilicity and Eastlink have proposed that the supplementary round be eliminated (either entirely, or at least in the case where there are no unsold blocks) in order to reduce complexity[5], and many other parties have urged Industry Canada to provide more and better information about the detailed working of the format and the proposed rules. However, these concerns should not distract from the fact that the CCA is the

[2] Cogeco Comments, paragraph 15; Eastlink Comments, paragraph 40; Mobilicity Comments, paragraph 47; Public Mobile Comments, paragraph 22.
[3] Bell Comments, paragraph 68 and Globalive Comments, paragraph 30.
[4] Eastlink Comments, paragraph 49.
[5] Mobilicity Comments, paragraph 17 and Eastlink Comments, paragraph 21.

preferred option. As TELUS has noted, even though in its view the CCA suffers from a number of shortcomings, it is far from clear that the SMRA would be a better format.[6]

23. Rogers believes that the complexity of the CCA is more than offset by the benefit of removing the exposure risks that bidders would face, for example, in an SMRA. The SMRA format is especially disadvantageous for those bidders that aggregate a greater number of blocks subject to synergies, due to aggregation risks. Moving to a much more neutral format – such as the CCA format – that puts bidders aggregating few blocks and those aggregating many blocks on an equal basis, will inevitably benefit aggregating bidders more compared to the SMRA format. However, this is simply a reflection of the poor performance of the SMRA for bidders wishing to aggregate blocks, and not that the CCA is unfair to any particular class of bidder. Nevertheless, we have pointed out in our comments a number of modifications that would improve the working of the CCA and remove some of the complexity, such as:

    a) the combination of the unpaired spectrum into a single block;
    b) additional rules for automatic assignment of frequencies to ensure contiguity;
    c) proposals to reduce the complexity of the assignment stage; and
    d) a consistent and less restrictive application of activity rules across the clock rounds and the supplementary rounds.

24. We strongly urge Industry Canada to consider adopting these changes. They would not only reduce complexity and gaming opportunities, but also bring the proposed auction rules more in line with those used in CCAs that have been successfully conducted in other jurisdictions.

Categories of Generic Licences

25. In our comments, Rogers supported the proposed structure of generic licences in this auction. However we have a concern regarding the two unpaired D/E blocks also. While Rogers acknowledges the proposed structure is consistent with the U.S. band plan, offering the unpaired D/E blocks as a single block would remove a considerable amount of unnecessary complexity, as there is no benefit in offering the unpaired spectrum as two 5 MHz blocks.

26. There appears to be broad agreement among the parties with the proposed licence categories (although TELUS proposes to use seven ‘generic’ licence categories –

[6] TELUS Comments, paragraph 16.

i.e. one category for each block in a service area[7]). Opinions differ substantially, however, with regard to:

a) the value of the A block relative to prime spectrum (raised, for example, by Bell[8]);
b) the relative value of B/C blocks (e.g. in the submission by MTS, although the concerns expressed appear to relate more to the contiguity guarantee that the winner of B would enjoy and which MTS – wrongly – fears might drive up the price of a single B/C block[9]); and
c) the potential usability of the D/E blocks (to the extent that Sasktel, for example, maintains that the unpaired spectrum should not be offered as part of the same auction process, but separately[10]).

27. There is also significant divergence among the parties regarding whether unpaired spectrum can be used in combination with the C block. Bell maintains that the unpaired spectrum cannot be used in combination with the C block because of interference concerns[11], whereas Mobilicity considers the unpaired spectrum to be a good substitute for paired frequencies that can be used to support asymmetric upload and download speeds.[12]

28. These diverging opinions reflect the large degree of uncertainty that exists with regard to the potential use of the non-prime blocks, and their potential substitutability. Given this uncertainty, Industry Canada should provide for switching between the different types of non-prime spectrum, and potentially prime and non-prime spectrum, to allow the auction to determine the most efficient outcome. It is in the case that there are widely divergent opinions about valuations that auctions have significant benefits to offer, but only where the market can properly explore a full range of outcomes without hindrance.

29. One essential function of the open stage in the CCA format is price discovery and reduction of common value uncertainty. This enables bidders to find those packages that are most desirable to them with regard to the spectrum and its market price. For an efficient auction outcome, bidders need to be able to switch easily between block categories according to the price developments and the bidders' updated valuations.

[7] TELUS Comments, paragraph 25.
[8] Bell Comments, paragraph 32.
[9] MTS Comments, paragraphs 13-15.
[10] SaskTel Comments, paragraph 39.
[11] Bell Comments, paragraph 32.
[12] Mobilicity Comments, paragraphs 82(a) and 84.

30. Industry Canada should therefore remove, as far as possible, any impediments to switching and allow aggregation of different combinations of contiguous spectrum on a non-discriminatory basis. Given the wide range of views, the guiding principle for Industry Canada should be to provide the maximum possible flexibility:

    a) If blocks are considered to be substitutes for at least one bidder they should be included in the same auction and have the same number of eligibility points. This would avoid the artificial creation of barriers to switching back and forth between blocks during the clock rounds thereby enhancing the efficiency of the auction outcome, without any significant downside.
    b) Contiguous assignment of blocks should be guaranteed as widely as possible. If there is uncertainty about contiguity for some combination of blocks but not for others, Industry Canada will be artificially creating value differentials and impediments for substitutions. This could have a negative impact on the efficiency of the auction outcome.

31. Rogers, therefore, recommends that Industry Canada use a constant ratio of 2:1 for the eligibility points for blocks A/B/C and D/E respectively, as this would allow easy switching for bidders who see the D/E blocks as substitutes for A and as complementary to C. Lowering the eligibility points for the A block would be inappropriate as this could deter bidders from switching to A in order to maintain their eligibility during the clock rounds. To the extent that this conflicts with opening bids, Rogers recommends that Industry Canada either adjust the opening bids to bring them in line with the proposed ratio, or allow for some flexibility in relation to the relationship between opening bids and eligibility points. There is no necessity for opening bids and eligibility points to be in lock-step, although obviously this simplifies the determination of initial eligibility.

32. Bell argues that the distinct ecosystems supporting the B/C blocks and the C1/C2 blocks differentiate these blocks to such an extent that they should not be included in the same generic category.[13] Bell is incorrect. The lower B and C blocks are completely interchangeable, as are the upper C1 and C2 blocks. Moreover, the Department has not proposed *"grouping all four blocks together into one generic licence"*. In fact, there are two generic blocks within two generic licences.[14]

33. We believe that Bell's claims regarding potential interference between the D/E blocks and the B and C blocks are exaggerated. Further, its assertion that the D/E blocks cannot be used in combination with the B/C blocks is not proven and should

[13] Bell Comments, paragraph 31.
[14] Consultation Paper, paragraph 27, Table 2.

be dismissed.[15] The D/E blocks can potentially be used with the B and C blocks to create asymmetrical LTE. However, with regard to interference, the onus should be on owner of D to not interfere with the C block (unilaterally), given that the C block will likely be of higher value (as FDD spectrum) and should not be subjected to nuisance interference from any potential TDD uses in the D block.

34. Another impediment to switching between substitutable blocks is the overly restrictive revealed preference activity rules. The currently proposed activity rules might prevent bidders from updating their valuations and create incentives for not dropping eligibility points in order to avoid constraints during the clock rounds. For this and other reasons the activity rules should be changed as explained in Rogers' comments and below.

Contiguity of Spectrum

35. In order to remove aggregation risks and to simplify the assignment round Rogers recommended in its comments that Industry Canada provide for the automatic assignment of contiguous spectrum. In particular, we explained that the C/D and C/D/E blocks should be automatically assigned, when feasible, just as Industry Canada has proposed to guarantee contiguity for the A and B blocks. Rogers also recommended that Industry Canada combine the D/E blocks into a single block, which would further reduce the complexity of the assignment stage. Lastly, we recommended that, as a second priority after frequency contiguity, Industry Canada should prioritize geographic contiguity in the assignment phase.

36. In the comments that were filed by the parties, there was broad support for the concept of guaranteeing A/B block contiguity where bidders acquire one block in each of the A and B/C categories. Rogers, Bell, TELUS, SaskTel, Globalive, Sogetel Mobile, SSI and Xplornet all support this measure, and none of the remaining parties opposed this proposal.[16]

Role of the Supplementary Round and Focus on Guaranteeing the Final Clock Outcome

37. As we explained in our comments, Rogers agrees with Industry Canada's objectives in setting activity rules that encourage truthful bidding. However, Rogers has

[15] Bell Comments, paragraph 33.
[16] Bell Comments, paragraph 34; TELUS Comments, paragraph 29; SaskTel Comments, paragraph 41; Globalive Comments, paragraph 14, SSi Micro Comments, paragraph 14; Xplornet Comments, paragraph 9.

serious concerns that the proposed activity rules facilitate vexatious bidding, to which Rogers is particularly exposed for the reasons discussed above.

38. A number of regional bidders, including MTS, Eastlink, Quebecor, Tbaytel and Xplornet, raise concerns about the supplementary round.[17] These concerns are largely focused on the position of regional bidders relative to national bidders, and the opportunity to 'guarantee' the final clock outcome through a supplementary bid that raises the final clock bid by the price of blocks that are unsold at the end of the clock rounds. Some operators, like Eastlink, are generally uncertain about the functioning of the supplementary round and its consequences.[18]

39. As some of the regional bidders rightly point out, the proposed knock-out bid recipe requires the same absolute increase in the final clock bid for all bidders regardless of their final primary package and may therefore be of little use to smaller bidders. Effectively, regional bidders are concerned that the proposed activity rules only theoretically provide all bidders with a tool to protect their final clock position. However, they fear that, in practice, this tool can only be used effectively by the largest bidders.

40. The CCA format places bidders on an equal footing whereas the SMRA format is especially disadvantageous to bidders that wish to aggregate a greater number of blocks. To ease the concerns that regional carriers have, Rogers has recommended several modifications that Industry Canada could make to create a level playing field across all carriers within the context of the CCA, and without compromising the goals of efficiency and fair pricing.

41. Consistent with our comments, we propose that the following combination of measures be introduced:

    a) **A prohibition on package bids combining lots in both the Upper and Lower bands.** This would reduce the scope for bidders to include lots they do not really want in order to strengthen supplementary bids, thereby easing concerns for regional carriers.

    b) **Revisions to activity rules so as to reduce dependence on the final clock round and give a more meaningful role for the supplementary round.** For the reasons we describe below, it is not desirable to make

[17] MTS Comments , paragraphs 5-6; Eastlink Comments, paragraphs 16-20; Quebecor Comments, paragraph 35-51; Tbaytel Comments, paragraphs 8-9; and Xplornet Comments, paragraphs 11-15.
[18] Eastlink Comments, paragraph 32.

changes to auction rules to give regional carriers greater confidence that they will win their final clock bids. Rogers believes that the ideal solution to address the concerns of regional carriers and support a symmetric treatment of national and regional carriers is to reduce the certainty of securing the final clock package for national carriers. If Industry Canada were to adopt activity rules similar to those used for recent auctions in Europe, there would be more flexibility for all bidders to revise valuations during the clock phase and national carriers would face more uncertainty about potential changes to the final allocation following supplementary bids. A blueprint for how Industry Canada might revise its rules is provided in our comments[19].

c) **Reform of spectrum cap proposals and adoption of orthodox association rules**. Rogers believes that most regional carriers are already advantaged because they are new entrants who will benefit from the higher cap for prime spectrum. One effect of this rule is that (outside Saskatchewan and Manitoba) at least one prime block is every region is being reserved for such bidders. However, Rogers recognizes that if new entrants have a general preference for the lower band, because they prefer the AT&T device and technology ecosystem to the Verizon ecosystem, then this benefit may be lost if two associated "large wireless providers" successfully target and monopolize the lower band. One byproduct of our alternative proposal, which would permit large service providers (and their associated entities) to bid for up to 20 MHz in the upper C1/C2 blocks but only 10 MHz in the lower B/C blocks, would be to increase certainty for all entrants (regional and national) that they can win valuable lower band spectrum.

42. SaskTel proposes that the SMRA be reinstated for the 700 MHz auction and that Industry Canada wait until the auction for the 2500 MHz to use the CCA format.[20] Rogers opposes such a change on the basis that there is nothing inherently special about the 700 MHz band that makes it unsuitable for a package bid auction. If anything, the complex band plan associated with these frequencies makes package bidding even more important. Otherwise bidders could face severe aggregation risks, not just across regions (as has been the case with past SMRA Canadian spectrum auctions) but also across frequencies, especially between the lower and upper bands.

[19] Rogers Comments, paragraph 36.
[20] SaskTel Comments, paragraph 30-31.

Specific Regional Bidder Concerns Raised by Quebecor

43. Although Quebecor is generally supportive of the CCA, as discussed earlier it has concerns about the design of the supplementary round when there are unallocated licences in the final clock round. In that specific instance, a bidder has the opportunity to guarantee that it will win its final clock package if it increases its final clock bid by the "minimum safety increment", which is the value of the unallocated licences measured by the difference between the final clock prices and the opening prices. Quebecor observes that the minimum safety increment is the same for all bidders in absolute terms – which of course means that the minimum safety increment will not be the same for all bidders relative to the amount of their bids. If the minimum safety increment is a given fraction of a national bidder's overall bid, it will necessarily represent a higher fraction of a regional bidder's lower bid for a smaller number of licences.[21]

44. This is simply a matter of arithmetic. However, Quebecor asserts that this represents a fundamental flaw in the fairness of the auction. Quebecor assumes that a national carrier would necessarily be willing and able to raise its final clock bid by the minimum safety increment while a regional carrier would not. Quebecor concludes that national carriers therefore enjoy the certainty of always being able to secure their final clock package while regional carriers do not, and that this is fundamentally unfair.[22] On this basis, Quebecor goes on to make specific suggestions to fundamentally change the nature of the CCA.

45. The key benefit of the CCA format is that is eliminates exposure risk and, with straightforward bidding, ensures that licences are allocated to those that can provide the most benefits to Canadians. The proposed design aims for an efficient allocation and for pricing that reflects the opportunity cost of denying the best losing competitor. It is not just national carriers that enjoy the benefit of the elimination of the exposure risk. It is just as fundamental an advantage for a regional carrier – e.g. a carrier seeking a footprint across all of Quebec or all of Maritime Canada – that needs to avoid a "hole" in its licence aggregation to fulfill its business plan.

46. The situation that the regional carriers are focusing on is a narrow set of circumstances that should not dictate the auction design or prompt changes that would endanger the efficiency of the allocation or price outcomes. For such a

[21] Quebecor Comments, paragraphs 42-44.
[22] Quebecor Comments, paragraphs 49-51.

situation to occur, many conditions must be simultaneously present. Such a situation assumes:

a) that there are many unallocated licences at the end of the clock round;
b) that national carriers would ante up the premium above their final clock bid to secure their final clock package;
c) that regional carriers would not be able to afford the premium above their final clock bid; and
d) that a bidder submits a bid in the supplementary round that supplants the bids of one or more regional carriers (and which satisfies all the activity rule constraints of the auction).

47. Even if such a situation were to occur, and a supplementary round bid knocked out one or more bids from regional carriers, this could nevertheless be the most efficient outcome.

48. Those parties that are critical of the CCA format are assuming that the supplementary round is purely a remedial mechanism to assign blocks that are unallocated in the final clock round. In fact, the supplementary round has a real role to play in ensuring an efficient outcome. The supplementary round is a recognition that a bidder is constrained in the clock rounds to bidding on a single package each round and cannot necessarily express the value it would place on alternative packages.

49. Quebecor put forward three proposals to modify the rules governing supplementary bids. [23] However, the rule changes that Quebecor proposes are fundamentally incompatible with implementing the CCA in a way that can guarantee efficient outcomes and prices that reflect true opportunity costs. They would increase risks for bidders that are unable to bid for substitute packages and create incentives for strategic bidding. As such, the proposed changes would seriously harm the ability of the CCA to deliver an efficient outcome and maximize the benefit of LTE services for Canadians.

[23] Quebecor Comments, paragraphs 55-57.

Box 1: Concerns about the provision of knock-out bid strategies

By submitting a '*knock-out bid'* during the supplementary round a bidder can secure to win at least its *'final primary package'*, i.e. the package that it was bidding for in the last clock round (plus potentially some additional blocks). The existence of such a knock-out bid and the required bid amount are direct consequences of the revealed preference limit with regard to the final clock round (i.e. the *'final price cap'*).

To secure its final primary package (*'FPP'*) a bidder needs to increase its final clock round bid by at least the value of all unallocated blocks at final round prices minus respective opening bids. Since all bidders' supplementary bids for packages other than their own FPP are constrained relative to the prices in the final clock round, such a knock-out bid cannot be displaced from the winning allocation under any combination of submitted supplementary bids.

However, there are a number of issues with this provision of a knock-out bid strategy:

a) The required increase above the package price in the final round is the same for all bidders. The absolute amount may thus be of different magnitude relative to the different prices of individual bidders' packages. While the knock-out bid may lie within the budget of a national operator, it could be prohibitively expensive for a regional operator. For example, a small operator could be bidding only on a limited number of products with little competition in a particular region. The value of unsold blocks across the whole country including highly competitive products (and thus the required increase for the knock-out bid) might well exceed the value of the bidder's final primary package and its overall budget. Regional bidders may therefore be unable to enjoy the certainty of knock-out bids.

b) The provision of knock-out bids exposes the auction to a severe risk of vexatious supplementary bids on packages that a bidder does not intend to win. A bidder can safely place supplementary bids above its own valuation solely to drive up prices and harm other bidders. Such price driving would be without any risk for the bidder to win an undesired package, as the knock-out bid guarantees the bidder to win its final primary package. In particular, if a bidder increases its bid for its final primary package by the value of unsold blocks, then it can also increase its bids for other packages providing it does not increase these too much. As long as bids on these other packages do not exceed final round prices, they cannot win. In this case, bidders could place bids in excess of their true valuations without any risk.

c) To ensure that bidders can actually submit a bid at the required 'knock-out' bid amount, the proposed rules apply the revealed preference constraints inconsistently for the clock rounds and the supplementary round. The rules explicitly exclude supplementary bids on the final primary package (plus potentially some unallocated blocks) from any revealed preference constraints that would have applied to these bids during the clock rounds. This inconsistency could potentially distort bidding incentives and price discovery.

For these reasons the final price cap must be limited so that the supplementary round is given a proper role, as has been the case in all of the previous CCA auctions conducted in other jurisdictions. Revealed preference constraints from the primary round should be consistently applied.

The tie-breaking rule in favour of allocations closer to the final clock round – another technicality introduced in support of the knock-out bid – is a straightforward way of enhancing certainty about the final allocation. Rogers therefore recommends retaining this tie-breaking rule while removing the final price cap.

Vexatious Bidding

50. Like Rogers, a number of respondents (e.g. Mobilicity and Xplornet[24]) are concerned that the supplementary round in its proposed form encourages vexatious bidding behaviour with the sole purpose of harming competitors and forcing them to pay more. Such vexatious bidding will be facilitated by the currently proposed activity rules, with revealed preference limits aimed at cementing, as much as possible, the final clock outcome.

51. Rogers has made a number of proposals for how the activity rules should be modified in order to provide a real purpose for the supplementary round and to increase the risk associated with vexatious bidding. More specifically, Industry Canada should remove the final price cap and thereby foreclose knockout bid strategies for large bidders. Without the final price cap national bidders will unlikely have any guaranteed knockout bid opportunities and are thus put on a more equal footing with regional bidders. Furthermore, a true chance of winning any of their supplementary bids will discourage bidders from placing purely vexatious supplementary bids to drive up competitors' prices.

52. Rogers further believes that the revealed preference activity rule in its current form is too restrictive and inconsistent. Rogers' comments contain detailed recommendations on how to relax the revealed preference activity rules so as to:

    a) provide more flexibility to bidders for updating valuations; and
    b) provide a proper role for the supplementary round.

53. Rogers believes that its proposed changes could significantly improve the efficiency of the auction outcome and would discourage vexatious bidding strategies.

54. Eastlink and Mobilicity suggest omitting the supplementary round completely if there are no unallocated blocks at the end of the clock rounds.[25] However, this is not a feasible option for mitigating the risk of vexatious bidding. Omitting supplementary bids under certain conditions would provide distorted bidding incentives as some bidders may try to deliberately end the clock rounds with or without unsold blocks.

55. Rogers recommends that Industry Canada resist calls to remove the supplementary round, which is essential for the proper working of the CCA format, since doing so

[24] Mobilicity Comments, paragraph 9; Xplornet Comments, paragraph 11.
[25] Mobilicity Comments, paragraph 17 and Eastlink Comments, paragraph 21.

would create a risk to the format's structural integrity and could lead to distorted bidding incentives and inefficient outcomes.

Second-Price Rule

56. Rogers generally supports the use of a second-price mechanism for determining prices for both the main auction and assignment round. However, in our comments, we explained that we have serious concerns about the potential for unfair and punitive prices as a result of the second-price rules proposed by Industry Canada.

57. We believe that the second price rule is an essential element of the CCA auction design. For this rule to work effectively, it is necessary that all bidders have the opportunity to express their full demand for desired packages and that there are incentives for straightforward bidding in line with valuations. For this reason, Rogers opposes all measures that unduly restrict the ability of bidders to make supplementary bids.

58. Rogers also recommends that Industry Canada adopt more orthodox activity rules, similar to those that have been successfully used in Europe. This would help ensure a more meaningful role for the supplementary round. We are concerned that the current proposals for activity rules risk distorting the process of price determination because they place undue weight on guaranteeing the final clock outcomes. This reduces incentives for bidders to make supplementary bids that reflect real value preferences for packages other than their final clock round, while making it easier for bidders to make bids that may be purely designed to inflate other bidder's prices. More orthodox rules would avoid these pitfalls and would leave the auction less exposed to the risk of uneven price outcomes for licences that should have similar value.

59. Finally, Rogers continues to believe that Industry Canada should adopt the standard nearest Vickrey rule for determining price outcomes. The proposal to weight nearest Vickrey prices according to opening bids is arbitrary, and risks distorting auction outcomes by creating incentives for larger bidders to shade their supplementary bids. Any proposal to weight nearest Vickrey prices, including Public Mobile's proposal to weight prices according to final clock prices, risks distorting incentives for straightforward bidding.[26]

[26] Public Mobile Comments, paragraph 64.

Information to be Disclosed (Before)[27], During and Post-Auction

60. Rogers stated in its comments that it fully supports Industry Canada's proposal to disclose information on the following basis:

    a) provide full information about the identity of bidders, any declared associations, and their eligibility cap prior to the auction;
    b) disclose only aggregate demand and price data during the clock rounds, and not to reveal information about individual bids nor the identity of the bidders submitting them; and
    c) not to release full information about bids received during the auction.

61. Although we generally support maximum disclosure of information throughout an auction, we believe that in the case of a CCA, anonymous bidding is vitally important as a tool to ensure that payoffs from gaming strategies or tacit coordination between bidders, especially by associated bidders, are more uncertain. This will help to maintain the integrity of the auction.

62. It is significant, in this context, that two of the parties that opposed anonymous bidding are Bell and TELUS, the two operators who can anticipate being associated and are likely planning to pool spectrum after the auction. As TELUS itself admits, the effect of greater information disclosure would be to make it easier for associated bidders "to achieve compatible spectrum", presumably through coordinating their bids.[28]

63. Although Quebecor did not explicitly oppose anonymous bidding, they argue for open communication between associated entities during the auction so that such parties can coordinate their bidding strategy from round to round.[29] In effect, Quebecor's proposal would undermine anonymous bidding, at least for associated entities.

64. Rogers submits that if two bidders want to coordinate their spectrum acquisitions, the proper way for them to do so is as a single bidding entity, subject to the same caps as any other single bidder. This is not something that should be facilitated through relaxation of information policy, which – on the basis of the current rules – is one of the few barriers that have been proposed to thwart associated bidders from abusing their privileged bidding status for gaming purposes.

[27] Rogers believes that information disclosed before the auction is as critical as disclosure during and post auction.
[28] TELUS Comments, paragraph 35.
[29] Quebecor Comments, paragraph 76.

65. Accordingly, Bell's argument that greater information disclosure will promote truthful bidding and more efficient assignment of licences cannot be considered valid.[30] This might be true were Industry Canada proposing an auction in which all bidders were competing on a reasonably level playing field. However, in the context of an auction where spectrum caps vary across bidders and certain bidders have permitted associations that circumvent the caps, there is a material risk that a more relaxed information policy will do more harm than good, creating opportunities for non-straightforward bidding that distort final prices and preventing efficient outcomes. We note that Bell itself identifies concerns about the potential for gaming behaviour by new entrant bidders who will be subject to the higher cap on prime spectrum. However, Bell conveniently ignores the potential advantages that might be enjoyed by two associated bidders subject to either the higher or lower caps.

66. Very few parties commented on the release of information about bids after the auction. Rogers and Bell both supported full release, while Public Mobile opposed any release.[31] Rogers continues to believe that full information must be released, as this is the only way that bidders can independently verify the results of the auction. Given Industry Canada's proposal to use the CCA format again for the 2500 MHz auction, it is essential that bidders are provided with the information they need to analyse the performance of the auction format.

67. Rogers is sceptical about Public Mobile's assertion that publishing bids does not provide information that will be of any value to competitors, given that the 700 MHz is a one-off award, and the values expressed by bidders for this band are unlikely to be of much relevance for the 2500 MHz, given the very different characteristics associated with this band. Moreover, to suggest that it is without precedent for information about losing bids to be published is simply false. In fact, this has been the norm for all previous U.S. and Canadian auctions run on the SMRA format.

68. Rogers strongly opposes Bell's proposal for full transparency during the clock rounds.[32] Specifically, Bell states the following in this regard:

> *…the usual arguments for limiting information are not applicable. Facilitating truthful bidding and increasing the pace of the auction decrease the potential of anticompetitive behaviour. As a result, the Department's focus should be on greater information disclosure to promote the most efficient assignment of licences. Therefore, Bell Mobility recommends that the Department provide*

[30] Bell Comments, paragraph 41.
[31] Rogers Comments, paragraph 75 , Bell Comments, paragraph 44 and Public Mobile Comments, paragraph 36.
[32] Bell Comments, paragraph 20.

information on which packages other bidders are bidding on at each round and to not adopt anonymous bidding.

69. Bell's proposal would clearly benefit bidders who intend to share spectrum but are bidding as separate parties since it would help them to coordinate their bids. Bell's position is therefore clearly self-serving and risks undermining the integrity of the auction.

70. Because a well-implemented CCA should reduce the need for bidders to make complex strategic decisions, transparency can be limited to information that is needed to support price discovery (i.e. aggregate demand information). This strongly contrasts with an SMRA, where any reduction in transparency worsens aggregation risks and may significantly reduce efficiency. Therefore, restrictions on transparency go very much hand-in-hand with the CCA format. For this reason, the CCA's that have been conducted to date in Europe have all had limited transparency.

71. With full transparency in the clock rounds, or with the ability to otherwise coordinate their bidding strategies, associated bidders could essentially bid as if they were participating as a single entity, while enjoying twice the spectrum cap of their competitors. This means that Bell and TELUS – two large operators – could take part in the auction with a joint spectrum cap allowance (four paired blocks, two of which can be prime blocks) that would exceed even the allowance that has been proposed for new entrants (two paired blocks, both of which can be prime blocks).

72. Even though associated bidders are likely to be able to derive more information from the same observed information than any other bidder by virtue of their explicit or implicit understandings, limiting transparency to the levels currently proposed is an important element in minimizing the advantages enjoyed by associated entities that are permitted to bid separately. The Department should therefore reject the calls of Bell and TELUS for greater transparency.

Assignment Round Process

73. Given the lack of information provided in the consultation about the assignment round process, it is perhaps not surprising that few parties raised this issue.

74. Rogers and TELUS both expressed concern about the complexity of the process. TELUS suggested that an assignment round could be avoided by shifting to use of

specific blocks only in the clock stage.[33] Rogers disagrees with this proposal, since it would add unnecessary complexity to the clock rounds by further increasing the number of package bid options. Instead, we encourage Industry Canada to consider our alternative proposal of prioritizing frequency contiguity and geographic contiguity as a way of efficiently reducing bid options in the assignment round. We trust that there will be a further opportunity to comment on this important stage of the auction once Industry Canada has developed its final proposals.

Software Availability

75. In our comments, we supported Industry Canada's intention to run as open and as transparent a process as possible. Consistent with this intention, we recommended that Industry Canada provide at least as much information as its European counterparts who have already run, or are planning to run, CCAs. One of the key areas where this commitment should be demonstrated is in relation to access to the software used to run the auction.

76. Industry Canada should provide bidders with the following information, at least three months before the auction start date:

    a) A copy of, or licence for, the winner and price determination tool (i.e. the solver) that bidders can use to test their own auction simulations and verify the auction process.
    b) A manual with screenshots that describes how to use the online bidding tool. Clarification of the process for supplementary bid submission and display is particularly important.
    c) Examples of all file formats that will be available for download from the online bidding tool.
    d) An example of the file format for uploading supplementary bids to the online bidding tool.

77. This approach is essential to support Industry Canada's objective of running a transparent process in which bidders have confidence in its proposal to introduce the CCA format.

78. We note that six respondents representing a wide range of wireless carriers (Rogers, TELUS, Bell, MTS, Tbaytel and Xplorenet) have referenced the need for

[33] TELUS Comments, paragraph 25.

access to and/or better understanding of software and underlying formulas used to determine outcomes.[34]

Industry Canada Section 5: Bidder Participation – Affiliated and Associated Entities

Proposed Definition of Associated Entities

79. Rogers supports the proposed definition of Associated Entities, subject to its comments on the types of arrangements that should be expressly excluded from the definition, which are discussed below.

80. Rogers notes that most parties who submitted comments support this definition.[35] Many of the concerns raised dealt with refining the types of agreements that are intended to fall outside the definition. There was general consensus on the need to clarify the exceptions in order to add certainty to the definition. These clarifications are addressed below.

81. Bell Canada has suggested in paragraph 59 and 60 of its comments that the proposed definition of Associated Entities could be tightened to reduce continuing uncertainty:

> *The Company believes that all stakeholders would benefit from a bright-line test in terms of providing for more consistent and predictable interpretation. Therefore, rather than referencing "any arrangements or understandings of any kind", which are often neither legally binding nor enforceable, the Department should adopt a standard of legal enforceability in terms of the types of legally binding arrangements that would give rise to an association. In other words, unless parties have entered into a legally binding and enforceable relationship of the sort that would give rise to legal redress before the Canadian courts in the event of a breach, such relationships should not be considered as falling within the definition of the types of relationships that make two or more parties associated.*

82. Given Bell's existing joint network arrangements with TELUS, this is an incredibly self-serving statement. Companies like Bell and TELUS have less need for legally binding arrangements than do other unassociated carriers because they already

[34] Rogers Comments, paragraph 103, TELUS Comments, paragraph 33, Bell Comments, paragraph 125, MTS Comments, paragraph 40, Tbaytel Comments, paragraph 17, Xplornet Comments, paragraph 15.
[35] This includes Rogers, TELUS, Globalive, Public Mobile, and SaskTel.

have years of experience in existing spectrum sharing and joint network arrangements. To exclude "understandings" or "implicit" arrangements from the definition of Associated Entities would therefore give greater latitude to Bell and TELUS to side-step the rules regarding disclosure of Associated Entity status. This would uniquely benefit these two carriers and open Industry Canada's proposed rules to evasion and abuse.

83. Eastlink made this point at paragraph 49 of its comments:

> *…the Department's policies and framework related to the 700 MHz auction cannot be constrained by the legal form of the arrangement between Bell and TELUS, but rather must recognize the economic substance of the relationship.*

84. Bell's proposal to focus on "legally binding agreements" should therefore be rejected by the Department.

Types of Agreements

85. The proposed definition of Associated Entities is the following:

> *Any entities that enter into any partnerships, joint ventures, agreements to merge, consortia or any arrangements, agreements or understandings of any kind, either explicit or implicit, relating to the acquisition or use of any spectrum in the 700 MHz band will be treated as Associated Entities. Typical roaming and tower sharing agreements would not cause entities to be deemed associated.* [36]

86. The intention of this provision is to capture arrangements that involve something less than control through ownership of the other entity (control through ownership is covered by the affiliate rule and that rule precludes separate participation in the auction under all circumstances).

87. The key to the definition is that the arrangement must relate to *"the acquisition or use of any spectrum in the 700 MHz band*."

88. As discussed further below, this definition would not catch tower sharing agreements, equipment purchase agreements or backhaul agreements since these do not involve acquisition or use of the spectrum.

[36] Industry Canada. Consultation on a Licensing Framework for Mobile Broadband Services (MBS) - 700 MHz Band. Paragraph 64.

89. The proposed definition would potentially catch roaming arrangements although Rogers agrees that these agreements should be explicitly excluded from the definition.

Level of Information to be Publicly Disclosed

90. In its comments Rogers submitted that in order to mitigate the consequences of allowing Associated Entities to bid separately under individual caps, complete details of these arrangements should be disclosed to the other bidders as quickly as possible. As discussed in Rogers' initial comments, there is a substantial informational advantage held by Associated Entities that are permitted to bid separately in the auction. This threatens the anonymity principle. That advantage must be off-set as much as possible by disclosing the nature of the arrangements between bidders and providing other bidders with the information disclosed to Industry Canada. Other than the actual commercial terms, little or none of this information should be protected by claims of confidentiality. This includes the nature and structure of the arrangements. It should be a requirement for permitting Associated Entities to participate as separate bidders that no claims for confidentiality be made except for commercial terms.

91. Public Mobile has made a similar point in paragraph 25 of its comments:

> *… any such request to be exempted from the general policy which requires those entities to participate as through a single bidder, should be public information, including the rationale and justification for providing such an exemption. Such clarity and public disclosure is important to ensure there is a clear understanding by all bidders of the status of "associated entities" and to ensure that there is a level playing field where all bidders understand what is, and is not, permitted between these entities.*

92. Bell, on the other hand, opposes even the Department's proposal to require disclosure of a list of entities with whom they are associated, together with a narrative describing *"all key elements and the nature of the affiliation in relation to the spectrum licences up for auction and the post-auction relationship."* [37]

93. Bell offers three reasons for its position, which Rogers will address in turn.

94. Bell's first argument is:

[37] Bell Comments, paragraph 63.

> *First, the determination as to associated entity status is the Department's alone to make based on the applicable associated entity definition and any related indicators and evidence. It serves no public purpose whatsoever to disclose what may very well constitute confidential or sensitive commercial information belonging to one or both of these entities on the public record.* [38]

95. Bell is incorrect in asserting that no public interest would be served by disclosure. Disclosure of the arrangements is the only possible way that the integrity of the auction can be preserved. Parties must know the nature of the relationship if they are to be put in a position to mitigate the unfairness of having two Associated Entities bidding separately in the auction.

96. As other parties have noted, there is also a public interest in other parties knowing what types of arrangements have been approved in order to provide more guidance and certainty as to the types of relationships that are acceptable.

97. Bell's second argument is:

> *Second, it is harmful to a carrier's business interests and thus negatively impacts competition to require the carrier to publicly disclose its confidential business agreements to its competitors. Stakeholders should not be able to use regulatory proceedings, particularly a competitive auction process, as a backdoor method to gather commercially and competitively sensitive information that they would otherwise not be entitled to in a market which the Department has itself acknowledged to be intensely competitive.* [39]

98. This is a case in which the public interest in favour of disclosure outweighs any adverse impact on competition. The fact that two Associated Entities are being allowed to bid separately in itself represents a major concession to the principles of competitive bidding which ordinarily form a keystone of an auction. In order to obtain this concession, Associated Entities should be required to fully disclose the details of their arrangements with their associate. In any event, Rogers submits that the public interest will not be harmed by disclosure. Moreover, commercial terms such as rates would not be subject to disclosure.

99. Bell's third argument is:

[38] Bell Comments, paragraph 64.
[39] Bell Comments, paragraph 64.

> *Lastly, to the extent the Department is considering moving toward some form of public disclosure, the Company would recommend the adoption of a confidentiality model comparable to that set out in sections 38 and 39 of the Act. Section 38 creates a presumption that all information filed with the Commission in the course of its regulatory proceedings be made public via filing on the public record. However, section 39 overrides section 38 and prescribes that the following classes of information may be designated as and filed in confidence:*
>
> - *Trade secrets;*
> - *Financial, commercial, scientific or technical information that is confidential and that is treated consistently in a confidential manner by the person who submitted it; or*
> - *Information the disclosure of which could reasonably result in material financial loss or gain to any person, prejudice the competitive position of any person, or which would affect contractual or other negotiations.* [40]

100. In response, Rogers notes that the *Telecommunications Act* does not apply to spectrum auctions and the policies underlying sections 38 and 39 are not appropriate in the current circumstances where Bell is attempting to gain a competitive advantage in an auction through an Associated Entity arrangement and is seeking to consolidate that advantage by withholding information from other bidders that might go at least some way to offsetting that advantage.

101. The Department was quite clear in its consultation paper and the May 30th information session that the purpose of disclosure is "to ensure auction integrity and transparency". Without disclosure both auction integrity and transparency are not achievable.

102. As stated in Rogers' initial comments, it should be a condition of Associated Entities applying for the right to bid separately that they waive any right to confidentiality. There is a clear public interest in maximum disclosure of these arrangements.

[40] Bell Comments, paragraph 66.

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

103. A number of parties have commented on the types of agreements that should be excluded from giving rise to Associated Entity status.

104. There appears to be general consensus that roaming and tower sharing agreements should be excluded. This makes sense since such arrangements are routinely entered into between competing carriers and are mandated by Industry Canada.

105. There also appears to be consensus that backhaul agreements and joint equipment purchase agreements should fall outside the realm of agreements that give rise to Associated Entity status.[41]

106. Rogers supports these exclusions. These types of agreements are common among competing carriers and ought not to give rise to an inference of Associated Entity status for purposes of the auction.

The Proposal That Entities That Are Deemed Associated Entities May Apply to be Treated as Separate Entities for Participation in the Auction

107. In its initial comments, Rogers urged the Department to expand the process for consideration of applications by Associated Entities to be permitted to bid separately.

108. It is Rogers' position that Associated Entities that wish to bid separately must file their narratives with Industry Canada at least 90 days before the auction application date. The current proposal for filing 30 days in advance of the final application deadline does not provide sufficient time for bidders to react to either positive or negative rulings on such applications. Other potential bidders must also be provided the opportunity to review and comment on the narratives themselves.

109. Bidders considering an arrangement that could result in them becoming Associated Entities should have the option of filing details of their proposed arrangement with Industry Canada for an advance ruling before the bidders conclude finalizing their arrangement. That would permit bidders interested in perhaps forming such a relationship, but who are concerned whether it would satisfy Industry Canada, to

[41] See for example Bell and Globalive.

have some certainty. It would allow them to avoid entering into an arrangement in which they would not be allowed to bid separately under individual caps.

110. There appears to be widespread support for this type of transparent process, as well as for the idea for having advanced rulings.

111. Globalive, for example, has expressed the view that:

> *…the current proposals may still be overly restrictive and could have the perverse effect of only enabling meaningful sharing between only two carriers (Bell and TELUS). Bell and TELUS have already engaged in spectrum sharing arrangements and therefore have a pre-existing template with which to quickly strike such deals within the required deadlines. Without additional changes, spectrum sharing may be unduly limited to only Bell and TELUS.*[42]

112. For these reasons Globalive favours a process for advance rulings and the publishing by Industry Canada of summaries of any such rulings in advance of the auction.

113. SaskTel also urges the Department to ensure that potential or actual relationships between parties can be reviewed more than one month in advance of the auction and are reviewed in a timely manner. This is necessary in order to give bidders the time to react to such rulings in advance of the auction.[43] Mobilicity also supports an expanded process for public comment and rulings with an expanded timeframe.[44]

114. The 30 day period for filing narratives is clearly insufficient for the purposes of allowing public comment, providing meaningful guidance to other parties on what is permissible, or for parties to react to an adverse ruling. New timelines need to be developed along the lines recommended by Rogers. This is the only way in which this process can fulfil its designated role of preserving the transparency and integrity of the auction process.

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

115. As discussed in its initial comments, Rogers is concerned that permitting Associated Entities to bid separately under separate spectrum caps has the potential to

[42] Globalive Comments, paragraph 23.
[43] SaskTel Comments, paragraphs 45 and 46.
[44] Mobilicity Comments, paragraph 63.

undermine the integrity of the auction. The only way to partially restore auction integrity under the proposed changes to the Associated Entity rules is to:

a) require full disclosure of the Associated Entity relationship;
b) expand the process for assessment of, and reporting of decisions respecting, Associated Entities;
c) tighten up the anti-collusion rules to ensure that Associated Entities do not discuss auction strategy in advance of the date for applications;
d) prohibit Associated Entities who are permitted to have separate spectrum caps from bidding together, or co-ordinating their bidding strategy during the auction;
e) prohibit a group of small Associated Entities bidding together from bidding on more than 20 MHz of prime blocks in any given licence area. Otherwise they can use their advantages to monopolize the entire 40 MHz of prime spectrum. This runs completely contrary to Industry Canada's policy goals. It is irrelevant how many bidders form the Associated Entity, the limit is crucial to preserve competition in the auction as well as the Canadian wireless industry; and
f) prohibit a group of large Associated Entities bidding together as a single bidder from bidding for more than 10 MHz of prime blocks in any given licence area.

116. Public Mobile has also raised the spectre of permitting Associated Entities to purchase up to 40 MHz of spectrum:

> *… Acting separately, Bell/TELUS would be allowed to acquire and share the entire Lower 700 MHz spectrum band – with each acquiring one of the prime blocks and the two of them splitting the Lower A Block and the two unpaired blocks. This would result in one "associated entity" controlling five blocks, or 40 MHz of spectrum, two-thirds of the 60 MHz spectrum available in the auction. Extending this policy to the 2500 MHz auction would permit TELUS to acquire 40 MHz out of 60 MHz of 2500 MHz spectrum in all "Region B" high value spectrum areas. Combined, Bell and TELUS would be permitted to acquire a significant majority of the new spectrum, on top of already controlling the most extensive spectrum portfolio on the planet.*[45]

117. Xplornet has also addressed the issue of how high the cap should go for Associated Entities involving two incumbents, an incumbent and a non-incumbent, and two non-incumbents:

[45] Public Mobile Comments, paragraph 21.

> *Therefore, there should be a set of rules with respect to allowing the cap to be exceeded depending on the status of the companies in an associated entity. We suggest the following guidelines:*
>
> ***I. Two incumbents** – if allowed to have the cap apply separately, it should be an overall cap of two paired licences total for the associated entity. Otherwise, if the caps were applied separately, and as listed in the framework, it would allow two incumbents to partner and acquire, and share, the A, B, C, D and E blocks. This arrangement would provide the incumbents more than 45 MHz of contiguous spectrum.*
>
> ***II. An incumbent and non-incumbent** – allowed up to two prime blocks of spectrum, plus the A block. Theoretically, this combination could acquire the A,B,C,D,E blocks as above, but would not due to lack of need & limited financial resources.*
>
> ***III. Two non-incumbents** – no restrictions beyond their own individual caps (e.g. up to four paired blocks).*[46]

118. Rogers disagrees with Xplornet's proposal. As stated in its initial submission, Rogers does not consider that any Associated Entities should be permitted to acquire more than 20 MHz of prime blocks of 700 MHz spectrum in any given licence area. If the policy objective is to increase competition, the spectre of one group of Associated Entities being permitted to monopolize the spectrum being offered provides for the antithesis of the desired policy result.

119. In its comments, Quebecor has suggested that the proposed rules may be too restrictive insofar as they appear to limit the ability of Associated Entities to participate separately in the auction under separate spectrum caps to circumstances in which they intend to compete separately in the applicable licence area. Quebecor argues that this might preclude non-competing regional carriers that enter into a cooperative arrangement that is caught by the definition of Associated Entities, from bidding separately in the auction under separate spectrum caps in different non-overlapping geographic tiers. [47]

120. Rogers strongly disagrees with Quebecor's proposed change to the rules. Quebecor's proposal would open the door to coordinated bidding activity and

[46] Xplornet Comments, paragraph 43.
[47] Quebecor Comments, paragraphs 65-66.

manipulation of post-auction market structure that would seriously undermine the integrity of the auction. For the reasons provided below, this cannot be permitted.

The Criteria to be Considered in Determining Whether the Entities are Competing

121. In the consultation paper the Department proposed that in order for Associated Entities to be approved for separate spectrum caps *"…entities would be required to demonstrate that they intend to compete separately in the applicable licence area and continue to function as competitors to a level satisfactory to Industry Canada."* [48]

122. Rogers agrees with the Department that the appropriate test should be "whether the entities intend to compete separately in the applicable licence area."

123. Rogers does not believe that it is necessary to add the additional criterion of continuing to function as competitors to a level satisfactory to Industry Canada. In Rogers' view, this is too subjective a test, whereas it is possible to glean the intention of the parties to compete from the terms of the agreement setting forth their plans.

124. Rogers notes that there is fairly wide support for "intention to compete" as the appropriate test. TELUS, Bell and Globalive all support this test. Xplornet also suggests agreements can be used to discern the parties' intentions. [49]

125. For these reasons, Rogers urges the Department to limit the test to "intention to compete" and not include the criterion of continuing to function as competitors.

126. In its comments, Rogers also pointed out the hardship that could result from applying the "competing" rule to arrangements between small carriers that serve a sub-set of a Tier 2 area and larger regional or national carriers that serve the entire tier. This anomaly arises out of the fact that different tiers have been used to licence spectrum in different auctions. Rogers pointed out that it would be prejudicial to force two carriers to bid as a single bidder under a single cap due to the existence of an Associated Entity arrangement pertaining to only a small portion of a licence tier. It unduly harms both carriers' ability to deliver service and compete outside the exclusive area. This in turn will reduce competition. Under these circumstances, Rogers proposed that carriers should be entitled to bid as separate entities under

[48] Industry Canada. Consultation on a Licensing Framework for Mobile Broadband Services (MBS) - 700 MHz Band. paragraph 70.
[49] TELUS Comments, paragraph 47; Bell Comments, paragraph 73; Globalive Comments, paragraph 36; Xplorenet Comments, paragraphs 43-44.

separate caps as long as the exclusive portion constitutes less than 50% of the population of the entire licence tier.

127. This point has also been made by Tbaytel which has a co-brand relationship with Rogers covering only the western part of Tier 2-09 in Northern Ontario. Tbaytel submits that this relationship, covering only 30% of the population of this area, should not preclude Tbaytel from bidding as a single entity in the upcoming auction.[50]

128. Rogers fully supports Tbaytel, as well as other smaller carriers that only serve a sub-set of a tier in the 700 MHz auction. Rogers believes that its proposed test of excluding such agreements that serve less than 50% of the population of a tier would provide an administratively simple and fair way of distinguishing such arrangements from other more significant relationships.

The Proposal That No Change be Made to the Affiliated Entities Rule

129. Rogers agrees with the wording of the existing affiliated entity rule. Affiliated entities should continue to be prohibited from bidding separately.

130. Most parties who commented on this issue supported the existing wording. This included TELUS, Bell, Globalive, Public Mobile and Cogeco. [51]

131. BC Broadband Association argued in favour of an expanded definition that would include companies related through any kind of ownership-related arrangement, including joint ventures and agreements to merge.[52]

132. Rogers does not believe that the definition needs to be expanded in this way. The key to the affiliate rule is control – not just ownership. The definition of Associated Entities is broad enough to capture those other types of arrangements that amount to something less than control of another corporate entity. In addition, a joint venture may not involve any type of ownership relationship between the parties. It would be confusing to have an overlap of the definitions of Associated Entities and Affiliates – particularly when application of the two rules produce different results.

[50] Tbaytel Comments, paragraph 22.
[51] TELUS Comments, paragraph 52; Bell Comments, paragraph 78; Globalive Comments, paragraph 37; Public Mobile Comments, paragraph 26; Cogeco Comments, paragraph 15.
[52] BC Broadband Association Comments, paragraph 13.

Rules Prohibiting Collusion

133. The anti-collusion rules proposed by Industry Canada provide as follows:

> *From the date of application until the deadline for the final payment on winning bids, each applicant is prohibited from cooperating, collaborating, discussing, negotiating or entering into agreements, arrangements or understandings with any competitors regarding the licences being auctioned, bids or bidding strategies in the auction, or the post auction market structure. Each applicant is also prohibited from signaling its bidding intentions, either publicly or privately, from the application deadline until the end of the bidding process.*
>
> *The application form to participate in the auction will include a declaration that the applicant will be required to sign certifying that the applicant has not entered into any agreements, arrangements or understandings of any kind with any competitor, other than those disclosed to Industry Canada, regarding the spectrum licences being auctioned or the post-auction market structure. The applicant must also certify that it will not discuss during the auction, any agreements, arrangements or understandings of any kind with any competitor, including its disclosed associated entities, regarding the spectrum licences being auctioned or the post-auction market structure. For the purposes of this certification, "competitor" means any entity, other than the applicant and/or its affiliates, which could potentially be a bidder in this auction based on its qualifications, abilities or experience.*
>
> *Should a bidder fail to comply with this prohibition, it may be subject to disqualification from the auction and/or forfeiture penalties.* [53]

134. In its initial comments, Rogers urged the Department to change the rules back to the wording adopted in the AWS auction.

135. Unlike the AWS definition, the focus on the new rules is on the period from the date of application until the deadline for final payment on winning bids. It is during this period that bidders are prohibited from discussing the licences being auctioned, bids or bidding strategies. Given the fact that Associated Entities may now be permitted to bid separately in the auction, the omission of the proposed rules to prohibit discussion of licences, bids or bidding strategies prior to the date of the application is a glaring error.

[53] Industry Canada. Consultation on a Licensing Framework for Mobile Broadband Services (MBS) - 700 MHz Band. paragraph 79.

136. By failing to prohibit any discussion of bidding strategies or block preferences in advance of such applications, the Department is presenting an opportunity for otherwise associated entities to collude in advance of the auction prior to the filing of their applications to participate. Whether this collusion between parties occurs before the filing deadline or after it, the result will be the same – the integrity of the auction will be wholly undermined.

137. It is the coupling of the fact that associated entities may be allowed to bid separately, with the focus of the anti-collusion rules on the post-application period, that gives rise to this threat to the integrity of the auction.

138. The dangers to auction integrity posed by the prospect of associated entities bidding separately pursuant to a common auction strategy cannot be understated.

139. Rogers notes that Xplornet has made a similar point in its comments:

> *Xplornet reiterates its position that Industry Canada should allow bidders to either bid jointly in associated entities – or bid separately. If bidding separately there can be no sharing of information prior to or during the auction, especially if the separate bidders are actually associated entities who were granted separate bidding privileges for certain reasons. If they do they should be subject to disqualification from bidding. There can be no in-between position.*[54]

140. Quebecor, on the other hand, has suggested that the anti-collusion rules are too stringent in prohibiting competitors who are Associated Entities from discussing bidding strategies etc. during the auction. [55]

141. In support of its position, Quebecor posits two examples of competitors who are participating in the auction as Associated Entities – in the first example under a single cap, and in the second example, under two caps.

142. In the first example, Quebecor's argument has merit. Two competitors bidding as Associated Entities under a single cap should be permitted to discuss their bidding strategy. They should in fact bid as a single bidder, communicating freely the entire auction. This would have been permitted in the AWS auction as it would not have prejudiced the other auction participants. [56]

[54] Xplornet Comments, paragraph 45.
[55] Quebecor Comments, paragraph 73.
[56] Quebecor Comments, paragraph 75.

143. As regards the second example, Quebecor argues that Associated Entities participating separately under two caps must be able to coordinate their bidding strategy in order to maximize the opportunity to share spectrum in communities with a joint build. [57]

144. As discussed above, this cannot be allowed to happen under any circumstances. Once it is permitted, there can be no protection for other bidders from the ability of Associated Entities to manipulate the auction to the prejudice of other bidders. The auction loses all semblance of integrity.

145. The potential harm that can arise from this type of coordinated bidding activity outweighs any possible benefit of enhancing the opportunity to share spectrum. It therefore cannot be permitted under any circumstances.

Industry Canada Section 6: Conditions of Licence for Spectrum in the 700 MHz Band

Spectrum Aggregation Limits

146. In our comments, we stated that certain modest modifications should be made to the spectrum aggregation limits in order to promote efficiency, truthful bidding, and discourage anti-competitive behaviour.

147. Bidders should not be allowed to bid for non-contiguous spectrum in the same package where there is no commercial purpose. Specifically, bidders should not be allowed to place:

    a) bids for packages that include upper block licences at the same time as the lower A block; and
    b) bids for packages that include both the A and D/E blocks without also including a bid in the B/C block.

148. Apart from these modest modifications, Rogers did not explicitly request that Industry Canada overhaul the spectrum aggregation limits, or spectrum caps, that it has outlined based on our understanding that this aspect of the policy has already been set by the Department. We note however that several parties have raised the issue of spectrum caps in their comments and have requested that the Department

[57] Quebecor Comments, paragraph 76.

make a number of significant changes to the policy.[58] Since this issue is now the subject of comment, Rogers is pleased to share the following recommendations regarding spectrum caps.

149. As we noted in our comments, the proposed auction rules, associated entities provisions and spectrum caps, combined with the unique structure of the 700 MHz band, which has an upper band comprising only prime spectrum and a lower band comprising both prime and non-prime spectrum, create serious asymmetries that will result in vexatious bidding and inefficient outcomes.

150. If Rogers wishes to secure two blocks of contiguous paired spectrum, it will be prevented from bidding for spectrum in the upper part of the band since it only contains prime spectrum and the rules limit Rogers to a single block of prime spectrum. Associated bidders such as Bell and TELUS on the other hand will be able to bid in both the lower and upper part of the band in order to secure two contiguous blocks of paired spectrum. This asymmetry limits Rogers' bidding options and it provides Bell and TELUS with a significant advantage by permitting them to bid in both parts of the band. They will be able to drive up prices for blocks in the lower band where demand is likely to be greater and they will be able to retreat to the upper band and bid for two contiguous paired blocks in the face of lower demand and at a relatively lower cost than the lower band.

151. What Industry Canada should do to correct this significant imbalance is to permit large service providers to bid for up to 20 MHz in the upper C1 and C2 blocks but only 10 MHz in the lower B/C blocks. Moreover, the cap in the lower band should apply jointly to associated large wireless providers so that they would be limited to one lower B/C block. This would avoid the existing asymmetry between large wireless providers; drive demand and price in the upper blocks; reduce the possible price disparities between the lower and upper blocks; and increase auction revenues. At the same time, new entrants would be guaranteed at least one prime block in every licence area in Canada.

152. Mobilicity argued that the cap on large wireless providers should be extended to include the A block.[59] Rogers strongly opposes this proposal. If implemented, Rogers would no longer have any scope to pursue 20 MHz of paired spectrum, a configuration widely recognized as optimal for providing high-speed mobile broadband services, while Bell and TELUS could bypass such a restriction, owing to

[58] Public Mobile Comments, paragraphs 67-68; Mobilicity Comments, paragraph 82; Eastlink Comments, paragraph 11; TELUS Comments, paragraph 55.
[59] Mobilicity Comments, paragraph 93.

their sharing arrangement. This proposal would only serve to further exacerbate the unfairness of the proposed rules, further constrain the likelihood of an efficient outcome and almost certainly reduce auction revenues.

Trunked Mobile Spectrum Licensed for Radio Dispatch Services

153. As we explained in our comments, the proposed auction rules will place Rogers at a significant disadvantage relative to the association of Bell and TELUS. Rogers may only bid for a single block of prime 700 MHz spectrum whereas the association of Bell and TELUS may bid for two blocks of prime spectrum. Moreover, the asymmetry that is created by the proposed rules will seriously distort the competition between Rogers and the association of Bell and TELUS.

154. This imbalance created by the proposed rules is even more unreasonable in light of the fact that TELUS, in particular, already possesses more sub-1 GHz spectrum than any other operator in the Canadian wireless market, including Rogers. Specifically, in addition to the 12.5 + 12.5 MHz of 850 MHz cellular spectrum that it holds, TELUS has as much as 15 + 15 MHz of 800 MHz trunked mobile spectrum that it currently uses to operate its iDEN network. Under the proposed auction rules, TELUS (and the association of Bell and TELUS) stands to add to its existing holdings of sub-1 GHz spectrum by acquiring 700 MHz spectrum.

155. More importantly, however, is the fact that this spectrum has already been identified, and will shortly be formally approved, by the 3GPP standards organization as an LTE band, which means that LTE consumer devices and network gear will be developed for this spectrum. Indeed, the largest holder of this spectrum in the U.S., Sprint, has publicly announced its intention to wind up its iDEN service and to use this spectrum to provide mobile broadband services using LTE.[60] This means that TELUS already has sub-1 GHz spectrum in addition to 850 MHz spectrum that it can use to provide LTE services, either on its own, or in association with Bell.

156. Since TELUS already has a significant advantage over other competitors in terms of the iDEN spectrum it already holds and that can be used for LTE, allowing TELUS to bid for 700 MHz spectrum without restriction in the upcoming auction would be completely unjustified and will only further distort competition in the Canadian wireless market after the auction.

[60] *Sprint to Build LTE Over iDEN's Grave*, Forbes, May 31, 2012.
http://www.forbes.com/sites/greatspeculations/2012/05/31/sprint-to-build-lte-over-idens-grave/

157. Given the advantage that TELUS already has in terms of the sub-1 GHz spectrum that it can use for LTE, we recommend that TELUS be restricted to bidding upon only 10 MHz of 700 MHz spectrum in the upcoming auction, whether prime or non-prime. This will help avoid further distortions to competition in the Canadian wireless market and it will ensure that scarce 700 MHz spectrum is available for those bidders that need sub-1 GHz spectrum to implement LTE.

158. Moreover, with respect to the notion that TELUS or any other Canadian licensee of trunked mobile spectrum will be permitted to use this spectrum to implement mobile broadband services using LTE, Rogers believes that there are strong policy reasons for ensuring that a full public consultation be undertaken before any such use will be permitted by Industry Canada.

159. This is what Industry Canada did when it elected to authorize multipoint communications systems (MCS) and multipoint distribution services (MDS) licensees to use their licensed 2.5 GHz and 2.6 GHz spectrum to offer mobile services.[61] Apart from conducting multiple public consultations to examine all of the relevant issues, Industry Canada also required MCS and MDS licensees to return approximately one-third of their licensed spectrum to the Department before they were permitted to offer mobile services. Rogers submits that it would be inconsistent for Industry Canada to now permit radio dispatch service providers to use their trunked mobile spectrum to offer mobile broadband services using LTE without first completing a similar public consultation process, including the repatriation of some of the trunked mobile spectrum.

Mobilicity's Claims Regarding Spectrum Hoarding

160. In its comments, Mobilicity asserts that incumbent licensees hold an inordinate amount of mobile spectrum by both domestic and international standards.[62] They further claim that incumbent licensees did not need the AWS spectrum that they acquired in the 2008 AWS spectrum auction and only purchased the spectrum to foreclose competition by new entrants.[63] Lastly, Mobilicity asserts that incumbent licensees use their licensed spectrum inefficiently, or not at all.[64] All of Mobilicity's claims in this regard are without merit and should be dismissed by Industry Canada.

[61] Gazette Notice No. *DGTP-002-06 — Policy Provisions for the Band 2500-2690 MHz to Facilitate Future Mobile Service* http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08551.html
[62] Mobilicity Comments, paragraph 42.
[63] Mobilicity Comments, paragraph 43.
[64] Mobilicity Comments, paragraph 44.

161. Rogers demonstrated in the comments and reply comments that it filed in response to Industry Canada's 2010/2011 700 MHz consultation that its spectrum holdings are in fact consistent with the holdings of mobile licensees in other jurisdictions.[65] We also noted that while some U.S. licensees held less mobile spectrum than Rogers, they have attempted to significantly increase their mobile spectrum holdings through acquisitions and have also urged the U.S. Federal Communications Commission (FCC) to make more mobile spectrum available. These U.S. operators clearly do not view their spectrum positions as being sufficient and they are seeking more spectrum. This is an endorsement of the prudent spectrum investments made by Rogers.

162. Moreover, contrary to Mobilicity's hollow claim, Rogers did not acquire AWS spectrum to foreclose new entrant competition. Rogers acquired additional spectrum in the 2008 AWS spectrum auction so that it could implement advanced new LTE mobile broadband services. In fact, Rogers was the first Canadian operator to announce the launch of LTE in July 2011.[66] Rogers is using all of its AWS spectrum wherever LTE has been rolled out. Our LTE network currently provides peak download speeds of up to 150 Mbps and covers more than 35% of the Canadian population.[67] Rogers is investing approximately $2.2 billion in wireless capital investments in 2011 and 2012, including close to $500 million to bring LTE to approximately 60% of the population by the end of 2012.[68] More cities will be launched in 2013.

163. It is clear therefore that Rogers' use of AWS spectrum has resulted in Canadians receiving more advanced mobile services, much sooner, and with greater investments, than what has been provided through Mobilicity's use of its AWS spectrum. Similar use will be made with the 700 MHz spectrum, another LTE designated frequency band. It will be used to broaden delivery of Rogers expanding LTE service, especially as coverage is extended from urban areas into rural regions. Rogers will continue to actively deploy new spectrum more extensively than any new entrant.

---

[65] *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum (SMSE-018-10)*: Rogers Comments, paragraph 61. Rogers Reply Comments, paragraphs 21 and 23.

[66] *Rogers lights up Canada's first LTE network today*, July 7, 2011. http://www.newswire.ca/en/story/736607/rogers-lights-up-canada-s-first-lte-network-today

[67] *Rogers Reports First Quarter 2012 Financial and Operating Results*, April 24, 2012. http://www.newswire.ca/en/story/960981/rogers-reports-first-quarter-2012-financial-and-operating-results

[68] *Rogers Marks First Year Anniversary of Canada's First LTE Wireless Network*, July 9, 2012.

164. Lastly, in response to Mobilicity's claim that incumbent licensees hold more spectrum than they need and use their mobile spectrum inefficiently, it is important to understand that the reason that incumbent licensees hold more spectrum is that they serve many more customers than the new entrants. Obviously, the more customers that an operator serves, the more traffic that must be carried on its network and the more spectrum capacity it will require to serve that traffic.

165. When comparing the number of customers served, Rogers is shown to be a far more efficient user of spectrum than all of the new entrants. Rogers, in business over 25 years, serves almost nine times the number of customers as the new entrants combined with only three times the amount of spectrum.

Number of Subscribers per MHz of Mobile Spectrum

	National Spectrum (MHz)[69]	**1Q2012 Subscribers**
Rogers	145	9,310,000[70]
New Entrants	50	1,181,975[71]

166. If spectrum efficiency will be used to determine which licensees should be permitted to bid for additional spectrum in the upcoming 700 MHz spectrum auction, it is Mobilicity and the other AWS new entrants that would fail this test, not Rogers.

Lawful Intercept

167. Rogers explained in its comments that any lawful interception obligations, imposed as a condition of licence or pursuant to legislation, should be limited to capabilities that are provided for in industry standards and incorporated in commercially available equipment. Licensees should not be required to fund intercept capabilities that are not provided for in industry standards and commercially available equipment. Defining lawful intercept requirements based on industry standards will result in greater availability of technology, better ongoing support, and lower cost than non-standardized requirements.

[69] Rogers spectrum includes up to 25 MHz of Cellular, 60 MHz of PCS, 20 MHz of AWS and 40 MHz of BRS. Rogers does not hold this much spectrum in all areas. New entrant spectrum includes 40 MHz of AWS and 10 MHz of PCS.
[70] *Rogers Reports First Quarter 2012 Financial and Operating Results*, April 24, 2012.
[71] Videotron and Globalive subscribers are based on their published 1Q2012 results. Mobilicity and Public Mobile subscribers are based on Rogers' estimates.

168. We also stated that it would be inappropriate to impose a new condition of licence for interception of packet-based communications at a time when Parliament is considering whether to approve any such new requirements and in what form. The Department should retain the existing condition of licence regarding lawful access until Parliament passes legislation enabling the proposed new requirements.

169. We note that Bell also highlights the importance of ensuring that lawful access requirements are based on industry standards that are incorporated in commercially available equipment. Bell states the following in this regard:

> *At the outset, Bell Mobility notes that any lawful interception obligations imposed as a COL should be limited to circumstances where commercially available, standards-based network technology is available. In the event that commercially available off-the-shelf solutions are not available, any requirement for licensees to deploy non-standards-based solutions should, in Bell Mobility's view, be funded by the government. Bell Mobililty believes that such funding would be both appropriate and warranted given the public interest considerations driving the provision of such capability.*[72]

170. In response to the proposed new expanded interception requirements, Bell calls upon Industry Canada to retain the existing condition of licence for lawful interception on the basis that it would be inappropriate for the Department to impose the new requirements while Parliament is still considering the issue.[73]

171. Lastly, Bell states that the Solicitor General standards for lawful access should be subject to a consultation and that the standards should be based upon standards that have been prepared by an accredited industry standards organization.[74]

172. CWTA expresses many of the same concerns as those raised by Rogers and Bell.[75]

173. Eastlink, Quebecor, TELUS, and Globalive[76] have all supported the CWTA's views regarding these matters, while MTS Allstream has expressed similar concerns.[77]

[72] Bell Comments, paragraph 94.
[73] Bell Comments, paragraphs 96-97.
[74] Bell Comments, paragraph 98.
[75] CWTA Comments, paragraphs 21-23.
[76] Eastlink Comments, paragraph 52; Quebecor Comments, Annex, p. 4; TELUS Comments, paragraph 74; Globalive Comments, paragraph 58.
[77] MTS Allstream Comments, paragraphs 31-32.

174. Rogers fully agrees with these parties and urges Industry Canada to retain the existing condition of licence and to allow the proposed new requirements to be addressed by Parliament.

Research and Development

175. In our comments, we stated that we do not support the proposed condition of licence regarding research and development (R&D). The R&D condition has served its purpose and should be eliminated. The U.S., U.K. and Australia do not impose an R&D condition of licence and Rogers is not aware of any other jurisdiction that imposes such a condition of licence. Market forces will ensure that wireless equipment manufacturers and licensees will continue to invest heavily in R&D to enhance their competitive position.

176. Bell also opposes the proposed R&D requirement on the basis that it is effectively a "tax" on the wireless industry and that *"the cumulative effect of uncoordinated government fees, taxes and financial obligations related to licensing, originating from several distinct Federal departments and agencies, has placed a significant and onerous financial burden on all licensees"*.[78]

177. Bell also highlights the reasons that the Department itself stated for eliminating the requirement in the 2009 Auction Framework consultation. In that consultation, the Department stated that:

> *Industry Canada continues to recognize the need for the government "to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services". The Department notes, however, that two recent reports, the Telecommunications Policy Review Panel Final Report and the OECD Telecommunication Regulatory Institutional Structures and Responsibilities, cautioned against the mix of regulation and industrial development strategy. Other areas of Industry Canada are recognized as being well placed to further this policy objective.*[79]

178. Rogers fully shares Bell's concerns with the proposed requirement.

179. The CWTA has raised similar concerns to Rogers with the proposed R&D condition. First, the CWTA questions the need for such a requirement when the industry is

[78] Bell Comments, paragraphs 103-104.
[79] Bell Comments, paragraph 100.

already facilitating innovation *"through 'innovation clusters' or 'innovation centres' through wireless application and device development in research labs, and through testing of new applications and services on the networks themselves"*.[80]

180. Moreover, the CWTA notes that no other industry, and no other segment of the telecommunications industry, in Canada faces an R&D obligation, while no other jurisdiction internationally imposes any such requirement on spectrum licensees.[81] The CWTA correctly states that wireless licensees invest in R&D to remain competitive, irrespective of this requirement and that the condition of licence only adds to the "red tape" and administrative burden carried by the industry.[82]

181. Quebecor, SaskTel, TELUS, and Globalive[83] have all endorsed the CWTA's position.

182. MTS Allstream notes that the R&D condition *"was originally established to stimulate R&D in the telecommunications sector, with the hopes of spurring innovation and encouraging competitive growth in the industry".*[84] MTS Allstream concludes that:

> *Since the intended goal of the R&D condition of licence has been met, the R&D condition of licence is no longer efficient and proportionate to its purpose. The administrative burden of reporting R&D expenditures on an annual basis far exceeds the original purpose and intent of this condition of licence. Furthermore, it is clear that the objective of the R&D condition of licence can be achieved through reliance on market forces.*[85]

183. Rogers agrees with MTS Allstream's comments and fully support its recommendation that Industry Canada eliminate this outdated condition of licence.

Rural Deployment Requirements

184. In our comments, we explained that if an individual bidder obtains two paired blocks during the auction or two licensees join together after the auction to establish a joint network where they share or use each other's spectrum, they should be subject to the proposed condition of licence regarding rural deployments.

[80] CWTA Comments, paragraph 8.
[81] CWTA Comments, paragraph 9.
[82] CWTA Comments, paragraphs 15-17.
[83] Quebecor Comments, Annex, p. 4; SaskTel Comments, paragraph 51; TELUS Comments, paragraph 74; Globalive Comments, paragraph 59.
[84] MTS Allstream Comments, paragraph 33.
[85] MTS Allstream Comments, paragraph 34.

185. Consistent with Rogers' position on this matter, the association of Bell and TELUS should be required to satisfy the proposed rural rollout requirements if they elect to share or use each other's 700 MHz spectrum following the auction.

186. In its comments, Bell identifies a significant flaw that exists in the proposed rural deployment requirement. Bell explains that a large foreign operator with no HSPA footprint in Canada will be able to acquire two paired blocks of 700 MHz spectrum and would have no deployment requirements beyond the general deployment requirements that have been proposed.[86] As Bell states, this means that such bidders will be exempt from any meaningful rural coverage obligations.

> *The problem relates to the use of the phrase "its HSPA network footprint" in the event a "first time" foreign-owned and controlled new entrant, such as AT&T, were to win two paired blocks. Because such a "greenfield" non-Canadian wireless carrier would have no existing HSPA footprint as of March 2012,, as drafted, this COL would impose absolutely no obligation on such a new entrant to serve rural areas of Canada after five years or seven years of the licence term. In other words, having no pre-existing HSPA footprint as of March 2012 against which to measure its 700 MHS spectrum network roll-out obligations, such a new entrant would effectively be exempt from this critical policy to ensure that rural Canadians are not left behind in the digital divide. The same flaw would be no less apparent if a large non-Canadian wireless carrier acquired one of the 2008 AWS new entrants. In that case, because none of the AWS new entrants currently serves rural areas and therefore lacks an existing HSPA network, the foreign acquirer would similarly have no pre-existing HSPA network against which to measure its rural network roll-out.*[87]

187. Bell further explains that:

> *In effect, the rural roll-out obligation as currently drafted grants an unfettered licence to new entrant foreign-owned wireless carrier to skim the cream of Canada's largest, most lucrative urban markets and to abandon Canada's national interest and the attainment of long-standing Canadian telecommunications policies intended to ensure Canada has world class telecommunications networks in all areas of the country and that all Canadians, in both urban and rural areas alike, enjoy the benefits of these facilities.*[88]

[86] Under the general deployment requirements, 20 to 50% of the population in a given area must be covered.
[87] Bell Comments, paragraph 13.
[88] Bell Comments, paragraph 14.

188. To remedy this situation, Bell recommends that the Department require large foreign operators that acquire two paired blocks to provide 700 MHz coverage to the same extent as the largest HSPA network in a given licence areas as of March 2012.[89]

189. TELUS is similarly concerned that AWS new entrants will have no meaningful rural deployment requirements under Industry Canada's proposal.[90] TELUS rightly notes that AWS new entrants have either built coverage only in top urban markets, or not at all, meaning that they will have no obligation to cover rural markets.

190. Rogers shares Bell's concern with respect to rollouts by large foreign operators. We also agree with TELUS that it is equally as relevant in the context of a new entrant that either has not implemented any HSPA coverage as of March 2012, or has implemented relatively little HSPA coverage by that time. If a new entrant acquires two blocks of paired spectrum, then they should be subject to a more meaningful rural rollout requirement, otherwise the valuable paired spectrum they acquire will fail to deliver any benefits to rural Canadians.

191. Rogers recommends that the Department require new large foreign operators and existing AWS new entrants that acquire two paired blocks of 700 MHz spectrum to cover 50% of the population in each licence area they acquire within 5 years.

192. SaskTel argues that the rural deployment requirements should apply to all successful bidders of 700 MHz spectrum, irrespective of the quantity or category of the blocks that they acquire.[91] SaskTel also argues that the requirement should be tied to a licensee's existing overall coverage in a given licence area, not just their HSPA coverage.[92]

193. Given the dominant position that SaskTel enjoys in its traditional operating territory, Rogers submits that SaskTel's proposal is clearly intended to impose as much economic cost as possible on other bidders through more stringent roll-out requirements. Whereas SaskTel has been able to leverage its former monopoly wireline telephone operations to economically expand its wireless network throughout Saskatchewan, its competitors have lacked this ability and have relatively smaller wireless coverage footprints in the same area. Under these proposals, SaskTel's competitors will be required to expand their networks to a greater extent

[89] Bell Comments, paragraph 16.
[90] TELUS Comments, paragraphs 87-88.
[91] SaskTel Comments, paragraph 56.
[92] SaskTel Comments, paragraph 57.

than SaskTel. SaskTel's proposal is therefore self-serving and should be disregarded by Industry Canada.

194. Eastlink and Globalive also argue for more stringent rural deployment requirements. For its part, Eastlink suggests that the requirement should be fixed at 50% of the population within a given Tier 4 area.[93] On the other hand, Globalive baldly calls for the requirement to be set at 103% of the population within existing HSPA footprints in Tier 2 areas. [94] Globalive offers no explanation to justify this specific proposal.

195. Rogers submits that the Department should reject the proposals of these parties. Eastlink's proposed use of Tier 4 areas for the rollout requirement makes little sense given that the 700 MHz licences will be issued using Tier 2 areas. We believe that the proposed rollout requirements, coupled with our proposal that large foreign entrants and AWS new entrants be required to deploy to 50% of the population within a given Tier 2 area will be straightforward and will result in a more reasonable degree of 700 MHz coverage by these parties than under the Department's proposal.

General Deployment Requirements

196. In our comments, Rogers supported the proposed minimum population coverage requirements and the timeframe whereby the requirements must be met. We stated that it is appropriate for the Department to impose lower minimum coverage requirements in less populated areas and that this adequately recognizes that it will not be economic for licensees to achieve the same degree of coverage in these areas as areas that are more densely populated. We also supported the proposed 10-year time frame since it adequately balances the objective of encouraging a minimum level of coverage at the earliest possible date with the need to provide licensees with a reasonable period of time to make the investments necessary to expand their networks.

197. While Bell also supports the proposed general deployment requirements, SaskTel and TELUS argue for more rigorous general rollout requirements for 700 MHz licensees.[95]

198. SaskTel asserts that licensees should be required to deploy to 75% of the population in each Tier 2 area.[96] The company also argues that licensees should be subject to

[93] Eastlink Comments, paragraph 55.
[94] Globalive Comments, paragraph 65.
[95] Bell Comments, paragraph 107.

a *"use it or share it"* requirement whereby unused spectrum would be available to other licensees at no charge.[97]

199. TELUS suggests that additional general deployment requirements should apply to bidders that successfully acquire one or more blocks of prime spectrum, whereby prime spectrum licensees would be required to achieve coverage of between 20% to 50% of the population within 5 years and 25% to 70% within 7 years, depending on the Tier 2 area in question.[98]

200. As we explained above in our response to SaskTel's rural deployment proposal, wireline affiliates such as SaskTel and TELUS have been able to leverage their formerly monopoly wireline operations to economically expand their wireless networks throughout their traditional wireline operating territories. On the other hand, their competitors have lacked this ability and have relatively smaller coverage areas in the same territories. The calls of SaskTel and TELUS for more stringent general deployment requirements are intended solely to impose as much economic cost as possible on other bidders. As such, the proposals of these parties are transparently self-serving and should be rejected by the Department.

Industry Canada Section 7: Auction Process

Opening Bids

201. In its comments, Rogers explained its concern that the prices for paired blocks may be unreasonably over-weighted towards the larger regions of Southern Ontario and Southern Quebec, especially with respect to the A block. This is a concern given Industry Canada's proposal to apply the opening price ratios to the formula for price determination. We recommended that the Department reduce the $/MHz/pop for paired blocks in Southern Ontario and Southern Quebec to $0.327.

202. Several parties expressed concern about the high level of opening bids being proposed by Industry Canada for some or all regions. Notably, TELUS and Public Mobile – two very different bidders – made the same point as Rogers about the risk that lots go unsold inefficiently if opening bids are inflated too much.[99] Public Mobile is also concerned about the excessive price weighting towards Southern Ontario and Southern Quebec.

---

[96] SaskTel Comments, paragraph 59.
[97] SaskTel Comments, paragraph 60.
[98] TELUS Comments, paragraph 97 and Table 1.
[99] TELUS Comments, paragraph 113. Public Mobile Comments, paragraph 37.

203. Rogers strongly disagrees with Eastlink's proposal to further increase prices for regions with larger populations, while decreasing prices in the regions where they happen to have licences.[100] Prices are already indexed on the basis of population under the $/pop/MHz formula, so there is no justification for applying the same population multiple twice. A much more objective approach is to set a common $/pop/MHz amount for all regions, but then apply a discount to very small regions where there has historically been weak demand.

204. We disagree with Eastlink's contention that final AWS prices are a good guide for setting opening bids for this auction. The price ratios in the AWS auction were distorted by the fact that the SMRA format created greater aggregation risks that drove aggregating bidders to secure 'anchor' blocks before undertaking to secure additional blocks to expand the footprint around the anchor blocks. This in turn drove up the prices for 'anchor' blocks. Indeed, we note that Eastlink itself contributed to those price distortions that it now asks to benefit from, as it was one of the entrant bidders most active in bidding aggressively on regions and on non-set aside spectrum at prices that are hard to rationalize on any basis other than strategic gaming.

Eligibility Points

205. In our comments, we supported the proposal to use a common eligibility point weighting for paired blocks in each service area since this will facilitate switching across the A, B/C and C1/C2 categories. At the same time, we explained our concern that the proposed eligibility point structure appears to make switching between paired and unpaired blocks in the same service area overly difficult and that the distribution of points appears unduly weighted towards paired blocks in Southern Ontario and Southern Quebec.

206. We recommended that Industry Canada adopt a simple 2:1 formula for points for paired and unpaired blocks (i.e. the points for a 5 MHz unpaired block would be exactly half the points for a 5+5 MHz paired block in the same service area). This will enable bidders to switch easily between one paired block and two unpaired blocks in every service area.

[100] Eastlink Comments, paragraph 57.

207. We note that, in their comments, Bell and TELUS also identify similar concerns regarding the inconsistent ratio of eligibility points between categories of spectrum and geographic regions.[101]

208. A simple 2:1 formula for paired and unpaired blocks would make it straightforward for bidders to potentially substitute between the A, B, C and D/E blocks within the same region in response to changes in relative prices. It is completely inappropriate for bidders to become subject to revealed preference constraints as a result of such straightforward switches in demand. At the minimum, there should be a 2:1 relationship between the A block and the D/E blocks, the most likely substitution to occur during the auction.

209. In their comments, Public Mobile propose a simplified eligibility points regime in which there are three groups of regions, with all regions within a group having the same number of points.[102] A key argument presented by Public Mobile for this change is that it will reduce incentives for hoarding of eligibility points.

210. In response, while Public Mobile's concern about eligibility hoarding may have some merit, we think that there are more effective ways to address this problem. Our view is that the incentive for points hoarding derives primarily from the potential desire of bidders to avoid facing multiple revealed preference constraints which may constrain their ability to revise valuations as the clock rounds progress. As explained in our comments, this problem could be substantially addressed through revisions to the activity rules such that bidders making bids above their current eligibility points are only subject to a single revealed preference constraint, rather than multiple constraints from every eligibility reducing round. In this context, the imposition of a revealed preference constraint owing to a drop in eligibility created by a shift in demand between regions that have clearly different sizes and values would seem entirely reasonable. Therefore, it is unnecessary and undesirable to equalize points across regions.

211. In any event, Rogers recognizes that the huge variation in points across regions does tend to make hoarding strategies more likely than would otherwise be the case. In this regard, Industry Canada's proposal to assign an even greater proportion of points to Southern Ontario and Southern Quebec than in previous auctions is not helpful. Our proposal to reduce the ratio of points for these two regions, consistent with our proposal for adjusting opening bids, could further address concerns about hoarding.

[101] Bell Comments, paragraph 31; TELUS Comments, paragraph 25.
[102] Public Mobile Comments, paragraph 51.

Pre-Auction Deposits

212. Rogers stated its support for the proposed auction deposits in its comments.

213. Bell has proposed that, prior to the commencement of each day's bidding, bidders be required to provide Industry Canada with a financial guarantee via a letter of credit equal to 100% of the value of their previous day's last package bid.[103] Bell claims that its proposal will discourage bidders from engaging in gaming strategies designed solely to drive up the price of spectrum that they have no interest in acquiring.

214. Rogers opposes Bell's proposal since it will add significant complexity to the auction process and is likely impractical. Moreover, we question the relevance of Bell's suggestion in the context of a CCA. We believe that Bell's suggestion would likely be more relevant in the context of an SMRA. In any event, Bell's proposal is intended simply to make the auction process more financially onerous for smaller bidders and it is therefore transparently self-serving.

215. We believe that the vexatious bidding opportunities can be more effectively and practically addressed by making the modest modifications that we have proposed. Our proposed changes are also more likely to encourage truthful bidding and an efficient auction outcome than Bell's daily letter of credit proposal.

Industry Canada Section 10: Licence Renewal Process

216. In our comments, we stated our support for the proposal that licensees will have a high expectation of renewal since it will provide licensees with a suitable degree of certainty upon which to make the considerable investments that will be required to implement services using their licenced spectrum. We also stated that, if licence fees will be imposed for renewed licences, they should be set at a nominal level to only recover the Department's administrative costs, as is the case in the U.S.

217. We note that Bell opposes the notion that additional fees will apply for the use of the spectrum on the basis that the auction proceeds already reasonably compensate Canadian taxpayers for the use of the public resource.[104]

218. For its part, TELUS is critical of the current high level of fees that apply to mobile spectrum in Canada, especially compared to the U.S.[105] TELUS also questions the

[103] Bell Comments, paragraph 23.
[104] Bell Comments, paragraphs 127-128.

need to apply fees to auctioned spectrum and urges Industry Canada to undertake a thorough consultation process regarding spectrum fees at the earliest opportunity to address these issues.[106]

219. Rogers shares the concerns of Bell and TELUS regarding the already high level of fees that currently apply to Cellular and PCS spectrum in Canada. We urge the Department to implement a spectrum fee more in line with the administrative fee that is used in the U.S. for the same spectrum.

[105] TELUS Comments, paragraphs 128-130.
[106] TELUS Comments, paragraphs 127 and 131.