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25 July 2012

**UUby Email**

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Dear Mr. Chatterton:

**Subject:        *Canada Gazette, Part I - Notice DGSO-002-12 – Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band – Reply Comments of MTS Allstream***

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MTS Inc. and Allstream Inc. (collectively, MTS Allstream) welcome the opportunity to submit the attached reply comments in connection with *Canada Gazette, Part I* (5 May 2012) entitled *Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band* (Notice DGSO-002-12).

Failure to address any specific auction format or rule modification proposal does not imply that MTS Allstream is necessarily in agreement with any such proposal.

Yours truly,

A handwritten signature in black ink that reads "Geoffrey White".

for Teresa Griffin-Muir

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

**Reply Comments of**



**25 July 2012**

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## **I. INTRODUCTION AND EXECUTIVE SUMMARY**

1. MTS Inc. and Allstream Inc. (collectively, MTS Allstream) are pleased to provide the following reply comments in response to the Department's *Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band*, Notice DGSO-002-12, Canada Gazette, Part 1, 5 May 2012, as amended on 18 June 2012 (the Consultation Document).
2. MTS Allstream has reviewed the comments submitted by Bell Mobility Inc. (Bell); the BC Broadband Association; the Canadian Wireless Telecommunications Association (CWTA); Cogeco Cable Inc. (Cogeco); Eastern Ontario Regional Network (EORN); Bragg Communications Inc., carrying on business as Eastlink (Eastlink); Globalive Wireless Management Corp. (WIND); Ice Wireless; Data & Audio-Visual Enterprises Wireless Inc., doing business as Mobilicity (Mobilicity); the Public Interest Advocacy Centre (PIAC); Public Mobile Inc. (Public Mobile); Quebecor Media Inc., on behalf of itself and Videotron G.P. (Quebecor); Rogers Communications Partnerships (Rogers); Saskatchewan Telecommunications (SaskTel); Sogetel Mobilité (Sogetel); SSi Group of Companies (SSi); TBayTel; TELUS Communications Company (TELUS); Xplornet Communications Inc. and Xplornet Broadband Inc. (collectively, "Xplornet"); the Province of Ontario (through the Ministry of Agriculture, Food and Rural Affairs); Dr. Helen Hambly Odame of the University of Guelph; and Drs. Catherine Middleton and Gregory Taylor of TTRyerson University.
3. MTS Allstream restricts its reply comments to the following three areas:

### **Auction format and rules**

MTS Allstream shares the commonly expressed view that the proposed combinatorial clock auction (CCA) format and rules are complex and untested on such a large scale with regional licenses and a similar dynamic introduced with Canada's regional and national bidders, a concern that is more worrisome to regional bidders who face a distinct disadvantage under the CCA auction format.

The two-stage CCA design proposed by the Department, together with the fact that the activity rule draws on eligibility points in the clock phase, could allow for risk-free spiteful bidding. In the absence of assurance that such risk-free behaviour is not possible under the current rules, MTS Allstream agrees that there should be no supplemental round in the event that there are no unallocated licenses. In the more likely case where unallocated licences remain, supplemental bidding should be limited solely to bidding on unallocated licences. Otherwise, the auction is open to risk-free vexatious bidding on the part of bidders that will not only detract from the very truthful bidding that the Department hopes to incent, but also places at risk the final clock packages of smaller or regional players who have greater relative limits on their ability to guarantee their final clock packages.

### **Participation of Associated Entities**

In the view of MTS Allstream, if the Department decides to allow associated entities to participate separately in the auction and to have the spectrum caps applied to them separately, certain ground rules and safeguards should be established in order to maintain the integrity of the auction as well as the auction application process.

The definition of “associated entities” should not be so far-reaching as to capture every single agreement between two potential bidders in the auction, however if parties have entered into joint bidding agreements or developed a joint bidding strategy then they should be required to participate in the auction as a single bidder and to have a single spectrum cap applied to them.

## **Rural Deployment**

MTS Allstream proposes solutions to address the widely-held concern that the proposed rules will frustrate, rather than promote, the deployment of wireless services to rural areas of Canada.

MTS Allstream continues to propose that the Department attach a specific rural commitment (90 percent of the population within the Tier 2 licence area, and coverage equal to all other service providers' coverage, within ten years) on specific blocks of the 700 MHz spectrum, (similar to the manner in which Ofcom is attaching coverage obligations on specific blocks of 800 MHz spectrum) regardless of who wins those licences, and suspending mandated in-territory roaming on those licensees' networks for a period of five years to recognize the added burden faced by those licensees. This proposal would address the main concerns raised by parties regarding the rural deployment obligations described by the Department.

## **II. AUCTION FORMAT AND RULES**

4. The Department has proposed that a combinatorial clock auction (CCA) format be used for the 700 MHz auction. A detailed description of the proposed CCA format and rules are provided in Section 4 and Annexes B, C, D and E of the Department's Consultation Document. As well, the Department held a one-day information session on May 31, 2012 in order to provide interested parties with an overview of the proposed CCA auction format and rules.
5. As many parties to this consultation have noted in their comments, the proposed CCA format and rules are complex and raise a variety of concerns. The most frequently noted concern – one with which MTS Allstream agrees – is the clear disadvantage regional bidders face under the Department's proposed CCA format and rules. A wide range of proposals have been made to address or at least mitigate specific concerns

with the CCA format and rules as proposed by the Department. MTS Allstream replies to these various proposals below.

**A. Proposed Generic Licences and Contiguity Guarantee**

6. The Department proposed that the following licences be treated as generic licences in each serving area:
  - Blocks B and C in the Lower 700 MHz band (two paired generic licences);
  - Blocks D and E in the Lower 700 MHz band (two unpaired generic licences); and
  - Blocks C1 and C2 in the Upper 700 MHz band (two paired generic licences)
7. The Department explained that it did not include block A in the same generic category as blocks B and C in the Lower 700 MHz band because there currently appears to be significant differences in the availability of technology for block A relative to blocks B and C, which implies that the current value of block A is not comparable to blocks B and C. At the same time, recognizing that the contiguous spectrum is preferable to non-contiguous spectrum for technological efficiency purposes, the Department proposed to provide a contiguity guarantee for any bidder who wins the A block and one of the B and C blocks in a service area. The guarantee would ensure that any such bidder would automatically be assigned the A and B licences in that same service area. As indicated by the Department, this contiguity guarantee was proposed to support efficient use of spectrum.
8. As explained in detail in its initial comments, MTS Allstream disagreed with the Department's proposal to treat blocks B and C as generic licences, since some bidders will clearly value block B above block C because of the fact that block B comes with a contiguity guarantee in the event the bidder also wins block A. In effect, the proposed contiguity guarantee implies that blocks B and C are not truly substitutable.

MTS Allstream proposed therefore that blocks B and C be treated as separate licence categories rather than a generic licence category.<sup>1</sup> In this way, any bidder interested in acquiring both blocks A and B within a service area can bid on them directly and, when doing so, not necessarily affect the price another bidder may have to pay for the C block in the same service area.

9. Public Mobile had a similar position to MTS Allstream and observed that the assignment round provides a bidder with an adequate opportunity to secure either block B or C in any given service area, depending on its preference, assuming it successfully won one of the two blocks in the service area in question (with or without also winning the A block).<sup>2</sup>
10. On the other hand, Rogers proposed the contiguity guarantee between blocks A and B be expanded further still. First, Rogers suggested that the unpaired blocks D and E should be merged into a single licence block, since it considers that there is no efficient use for these unpaired blocks on a standalone basis and, in addition, that merging D and E into a single block would reduce the complexity of the auction.<sup>3</sup> Second, Rogers suggested that a contiguity guarantee should also be provided between blocks C and D (or blocks C and D/E if the unpaired blocks were merged).<sup>4</sup>
11. The more practical and straightforward solution to these opposing proposals is to properly recognize the fact that blocks B and C are not true substitutes and that certain bidders will place different valuations on each of these two spectrum blocks. Consequently, for the reasons outlined in its comments, MTS Allstream continues to submit that the two blocks should be treated as separate rather than generic licences.
12. Further, with respect to Rogers' proposal to merge the 5 MHz unpaired D and E blocks into a single 10 MHz unpaired block, while some carriers may consider that the unpaired

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<sup>1</sup> MTS Allstream, comments on DGSO-002-12, 25 June 2012, paragraphs 13-16.

<sup>2</sup> Public Mobile, comments on DGSO-002-12, 25 June 2012, paragraph 17.

<sup>3</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 29.

<sup>4</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 32.

D and E blocks can only be used efficiently when combined, others may be interested in acquiring only one of the two blocks as currently specified under the Department's proposal. A merger of the two blocks precludes such an option. It would also force any such carrier to acquire 10 MHz of spectrum when only 5 MHz was desired, at a higher price than otherwise (assuming the price remained within budget).

13. To the extent a bidder won the C block in the auction and one of the D/E generic licences in the same service area, it would have an adequate opportunity in the assignment round to secure the D block, assuming it was interested in ensuring spectrum contiguity with respect to paired and unpaired spectrum. Consequently, in MTS Allstream's view, there is no need to provide a contiguity guarantee between blocks C and D as proposed by Rogers.

#### **B. Bias against Small and Regional Bidders**

14. MTS Allstream expressed the concern that the Department's proposed CCA format and rules have the potential to significantly disadvantage small and regional bidders.<sup>5</sup> Numerous parties expressed the same concern in their comments, including Eastlink, Quebecor, SaskTel, SSi, TBayTel, and Xplornet. Several of these parties suggested alternative means to address or at least mitigate the negative impact of the proposed CCA format and rules on small and regional carriers.
15. This concern relates primarily to the auction rule the Department has proposed that would permit a bidder to "guarantee" it would win its final clock package in the supplementary round in the event there are unallocated licences at the end of the final clock round. As set out in the Consultation Document, this proposed "final clock package guarantee" rule was stated by the Department as follows:

If all of the licences are tentatively allocated, then the bids placed in the final clock round are the provisional winning bids. If there are still some

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<sup>5</sup> MTS Allstream, comments on DGSO-002-12, 25 June 2012, paragraphs 2-7.

unallocated licences, a bidder can guarantee that it will win its final clock package by submitting a supplementary bid that increases the dollar amount of its final clock package bid by **at least** the final clock price of the unallocated licences **less the opening bid prices of the unallocated licences. This guarantee may be compromised if any other supplementary bid does not include, at a minimum, all of the licences contained in the bidder's final clock package.**<sup>6</sup>

16. As explained in MTS Allstream's comments, depending on the number of unallocated licences across the country, the cost of this guarantee for a small or regional bidder could be enormous, if not, entirely out of reach. In marked contrast, it could easily represent no more than a relatively small percentage of a national bidder's standing final clock package bid.
17. Under the Department's proposed rules for the 700 MHz auction, the clock rounds of the auction will be followed by a supplemental round, in which "[b]idders ... have the opportunity to guarantee that they win their final clock package by submitting a supplementary bid that increases the dollar amount of their final clock package by at least the value of the unallocated license as evaluated at the final clock prices ..."<sup>7</sup> At the same time, bidders are not limited to bidding on packages that they previously bid on in the clock rounds. Instead, "the supplementary round provides bidders with an opportunity to submit bids on multiple packages that they were willing and eligible to bid on in the clock rounds, but did not necessarily bid on."<sup>8</sup>
18. The combination of these two characteristics of the supplementary round of the auction may mean that a regional bidder interested in a specific licence can lose its final clock round package, even when the per-MHz dollar value of the spectrum is more than that of a bidder with a large, national package. This is likely to happen if there are a significant number of unallocated licences. In such a case, a national bidder may end up with the particular regional licence or licences by simply augmenting its supplemental round bids to include a package that contains the regional bidder's licence(s).
19. For example, assume the following:

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<sup>6</sup> Consultation Document, Annex B, paragraph 17 (emphasis original).

<sup>7</sup> Consultation Document, Annex B, paragraph 42.

<sup>8</sup> Consultation Document, Annex B, paragraph 41.

- MTS Allstream holds a single, paired block licence at the end of the final clock round at a price of four times the opening price – *i.e.*, \$12.8M (or \$1.06/MHz/pop);
- A national wireless service provider is holding a national single paired block licence at the end of the final clock round, also at four times the opening price – *i.e.*, \$646.9M (or \$1.93/MHz/pop);
- There is the equivalent of one national unpaired block licence left unallocated at the final clock round. The final clock round price, with no bids on it is \$88.8M, twice its reserve price of \$44.4M;
- Each bidder has the option of raising its final clock round bid by the value of the final clock round price of the unallocated licences less the opening price of the unallocated licences to guarantee that it wins its final clock package. In MTS Allstream's case, this would mean increasing its bid by \$44.4M, which would raise the effective price of its paired block of spectrum to \$4.73/MHz/pop, a 347% increase. While under the second price rule, winning with this bid may not result in MTS Allstream paying a 347% increase, the amount paid could be up to \$4.73/MHz/pop;
- The national wireless service provider, on the other hand, could increase its bid on its final clock round package by the same amount (\$44.4M) and only increase its effective spectrum price to \$2.06/MHz/pop – a 7% increase; and
- Subject to the pricing constraints, the national wireless service provider could also bid on a new package that contains both its final clock round package and the licence held by MTS Allstream at the end of the clock rounds, as well as the "guarantee" amount of \$44.4M, for a bid of \$704.1M - an increase of less than 9% over the bid it made on its final clock round package.<sup>9</sup>

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<sup>9</sup> Underscoring indicates revisions (in line with the Department's 18 June 2012 clarifications to the Consultation Document) to the example provided in MTS Allstream's comments on DGSO-002-12, 25 June 2012 at paragraphs 6-7.

20. Consequently, even if MTS Allstream increased its bid for its final clock round package in the supplementary round, the national wireless service provider could still pick up the licence that MTS Allstream had at the end of the clock rounds for less than MTS Allstream is willing to pay for it.
21. As a result of this potential dynamic, small and regional bidders could easily be shut out of the auction in the supplementary round under the existing CCA format and rules in the event there are unallocated licences at the end of the clock round. If this were the case, the prospects of the rural deployment of mobile broadband services using 700 MHz spectrum would be severely compromised, especially in less populated service areas.
22. Quebecor, for instance, noted that "the central flaw in the CCA model, as currently proposed by the Department, relates to the possibility that the final auction outcome emerging from the supplementary round may be radically different from the final clock result. Small regional bidders require certainty that they will not lose their final clock packages during the supplementary round."<sup>10</sup>
23. While SaskTel indicated that it prefers the use of a simultaneous multiple round ascending auction format for 700 MHz spectrum, based on the CCA format proposed by the Department, SaskTel suggested a two alternative measures to "help national and regional players participate in the auction on a more even footing."<sup>11</sup>
24. In addition, with respect to the same concern, SSI suggested that:<sup>12</sup>
  - (a) licences for the north and northern Quebec should be separated from any of the packages made possible under the CCA format due to the unique characteristics of the north and the fact that spectrum in these areas has often be left unused; and
  - (b) if there are unallocated licences at the end of the clock round, those licences should be subject to a new auction at a later date.

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<sup>10</sup> QMI, comments on DGSO-002-12, 25 June 2012, paragraph 53.  
<sup>11</sup> SaskTel, comments on DGSO-002-12, 25 June 2012, paragraph 32.  
<sup>12</sup> SSI, comments on DGSO-002-12, 25 June 2012, paragraphs 77 and 83.

25. MTS Allstream strongly recommends that the Department adopt some measure or measures to address the bias against small and regional bidders that is inherent in the currently proposed CCA rules. MTS Allstream considers the following to be the most practical and easily implemented measures in the event (i) there are no unallocated licences at the end of the clock and (ii) when there are unallocated licences.

**i) Proposed Supplementary Round with No Unallocated Licences**

26. In the event there are no unallocated licences at the end of the clock round, bidders (to the extent they are winning bidders at the end of the clock round) do not face the supplementary round disadvantage outlined above, since there is effectively no risk of losing their final clock package in the supplementary round. The price to guarantee each bidders final clock package is \$0.

27. As indicated in this respect by the Department:

If all of the licences are allocated at the end of the clock stage, then the supplementary round will not affect the final clock allocation. However, the supplementary round provides an opportunity for bidders to be reassured that they themselves were not prepared to pay more than the winning bidders for the licences in question.<sup>13</sup>

28. In regard to the second element of the above-noted statement by the Department, various parties – large and small – have expressed concerns with the apparent purpose and objective of a supplementary bidding round in the event that there are no unallocated licences. It would seem that its only purpose is to raise the price of licence packages won by rival bidders.

29. As noted by Rogers, for instance, in cases where there are no unallocated licences at the clock round, "bidders cannot be willing to pay more for any combination of allocated products than their final clock package by the very design of the proposed activity

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<sup>13</sup> Consultation Document, Annex B, paragraph 43.

rules."<sup>14</sup> Therefore, Rogers suggested that the only purpose of the supplementary bidding round in this case "is to allow bidders to impose costs on competitors."<sup>15</sup>

30. As well, Eastlink noted in its comments that it sees no incremental value in proceeding to a supplementary round of bidding in the event there are no unallocated licences at the end of the clock round. Eastlink suggested that it would provide greater certainty to the auction process if it were clearly stated that "the results of the final clock round, from both a package allocation and price perspective, would be definitive in the event that all of the spectrum has been allocated."<sup>16</sup>
31. Similarly, Mobilicity raised concerns that the supplementary round could be used by some bidders to "in order to raise the 'second price' other bidders must pay."<sup>17</sup> It suggested that the supplementary round be eliminated.
32. MTS Allstream shares these concerns with the incentives for spiteful bidding.
33. By design, the proposed CCA payment rule does not satisfy the law-of-one-price, which is often considered desirable in auction design.<sup>18</sup> Bidders do not necessarily pay the same price for identical licenses. For example, suppose there are two bidders and two homogeneous units of one item. Bidder 1 submits a bid of \$5 on one unit, while bidder 2 submits a bid of \$5 on one unit and a bid of \$9 on two units. Each bidder wins one unit, but under the second price payment rule bidder 1 pays \$4 and the bidder 2 pays zero. This difference is due to the asymmetry of bidders, and this asymmetry leads to a violation of the law of one price, a criterion. Although arbitrage is avoided as bidders cannot sell licenses among each other immediately, different prices for the same spectrum are difficult to understand for bidders and cause envy. Envy-freeness is another goal in mechanism design.
34. The game-theoretical literature on auctions typically treats bidders as expected utility maximizers. However, bidders in spectrum markets may spitefully prefer that their rivals

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<sup>14</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 59.

<sup>15</sup> *Ibid.*

<sup>16</sup> EastLink, comments on DGSO-002-12, 25 June 2012, paragraph 21.

<sup>17</sup> Mobilicity, comments on DGSO-002-12, 25 June 2012, paragraph 15.

earn a lower payoff. For instance, suppose that there is a bidder 3 in the above example, which has a good estimate of what bidders 1 and 2 are willing to pay for the individual units such that he can safely submit a bundle bid of \$3 for two units. Now, bidder 2 would actually have a payment of \$3 instead of zero. Research on spiteful bidding has shown that the expected revenue in second-price auctions is higher than the revenue in first-price auctions with spiteful bidders in a Bayes Nash equilibrium.<sup>19</sup> Such speculation, however, is risky for bidders.

35. The two-stage CCA design proposed by the Department, together with the fact that the activity rule draws on eligibility points in the clock phase, could allow for **risk-free spiteful bidding**. Consider an example service area or region with three licenses in two groups A and B/C, illustrated in the table below. Regional Bidder R1 has a cap of only one license from the B/C group. Another small bidder R2 can bid on 2 units in B/C. Suppose there is also a national Bidder N bidding on A and B/C (1,1) nationwide (in all 14 service areas) who drops out of the competition in the region in question at some point. This competition of regional bidder R1 and the national bidder will lead to high prices in A. Let's assume further that the second best allocation nationwide (without regional bidder R1) still consists of regional bidders only and does not include the bid of national bidder N. This can easily be the case if the prices in other regions increase even higher, so that the bid of the national bidders does not become a binding core constraint.

	Linear ask prices		Bids	
	P(A)	P(B,C)	Regional Bidder R1	Bidder R2
t=1	1	1	1,1	1,1
...	...	...	...	...
t=15	100	30	1,1	0,2
t=16	100	40	1,1	0,1

<sup>18</sup> P. Cramton, S. Stoft, "Why We Need to Stick with Uniform-Price Auctions in Electricity Markets", *The Electricity Journal*, Volume 20, Issue 1, January–February 2007, Pages 26-37, ISSN 1040-6190, 10.1016/j.tej.2006.11.011.

<sup>19</sup> F. Brandt, T. Sandholm, and Y. Shoham, "Spiteful bidding in sealed-bid auctions" in M. Veloso, editor, *Proceedings of the 20th International Joint Conference on Artificial Intelligence*, pages 1207-1214, 2007.

36. At the end of the clock phase in round 15 the regional bidders R1 and R2 each request two licenses, whereas bidder R2 selects two licenses B and C (0,2), and R1 bids on A and one of B/C (1,1). After prices for B/C rise again in round 16, bidder R2 reduces his demand to a single unit and the clock phase finishes with all items sold.
37. If both bidders do not submit any supplementary bids, then both would win their respective packages from the final clock round. In addition, based on the second price rule, Bidder R1 would pay \$20<sup>20</sup> and Bidder R2 would pay the reserve price of \$0.<sup>21</sup>
38. However, alternatively, Bidder R2, could also submit a supplementary bid on a (1,1) package solely to increase the base price bidder R1 pays. For instance, R2 could submit a bid of up to \$140 for a (1,1) package,<sup>22</sup> as would be permitted under the revealed preference rule. However, to be sure it would not win the package it could bid slightly less than that, say \$139. Assuming Bidder R1 made no other bids in the supplementary round, other than the final clock package price for its (1,1) package, rather than pay \$20 (as noted above), Bidder R1 would now have to pay \$99.<sup>23</sup> Bidder R1's higher winning price in this case would be purely a result of Bidder R2's spiteful bid. Note that the bid on (1,1) of R2 does not win, even if R1 submits another bid on (0,1) up to the allowed by the revealed preference rule limit, which is in this case \$40; the spiteful bid of R2 is therefore risk-free.
39. Such behavior would only increase the payments of bidders, but would not increase efficiency. According to the goals of Industry Canada outlined in the Consultation Document, this cannot be in the interest of the Department and is certainly not in the interest of bidders.

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<sup>20</sup> Base price determination: Total supplementary bids = \$180, where Bidder R1 = \$140 and Bidder R2 = \$40. If Bidder R1 removed from the equation to calculate the second price, then round 15 revenue would be \$60 (i.e., Bidder R2's bid of 2 x \$30 on package (0,2)). Bidder R1's contribution or discount is \$180 – \$60 = \$120 and, therefore, its winning or base price is \$140 (bid) – \$120 (discount) = \$20.

<sup>21</sup> Base price determination: In this case, if Bidder R2 removed from the equation to calculate the second price, then round 15 revenue would be \$130 (i.e., Bidder R1's bid of 1 x \$100 plus 1 x \$30 on package (1,1)). Bidder R2's contribution or discount is \$180 – \$130 = \$50 and, therefore, its base price is \$40 (bid) – \$50 (discount) = -\$10, which translates into a winning or base price of \$0.

<sup>22</sup>  $B \leq B_s + \sum_{i=1}^m (P_s, i \times (Q_i - Q_s, i)) = \$40 + (100, 40)(1, 0) = \$40 + \$100 = \$140$ . A safe spiteful bid would be just below this amount at \$139.

<sup>23</sup> Base price determination: Bid of R1 – (total revenue – second best coalition) = \$100 – (\$40 – \$139) = \$99.

40. In other auction formats, spiteful bidding comes at the risk of winning such a bid and is thus reduced. Spiteful bidding should come at a considerable risk in such high-stakes auctions. Currently, there is no proof that such riskless spiteful behavior is not possible under the Department's proposed activity rules. If this cannot be guaranteed, then as MTS Allstream has proposed the supplementary round should allow bidding on unsold items only to mitigate the risk of spiteful bids. Any minor losses in efficiency in case of unsold items after the clock phase should not provide a basis against bidding on unsold items only if such types of speculation are possible.
41. As a result, MTS Allstream supports the proposal to eliminate the supplementary round in the event there are no unallocated licences. As the Department notes, the purpose of the supplementary round in this case would not be to achieve a more efficient allocation of licences – given that all bidders would retain their final clock packages – but rather simply to potentially increase the prices paid for those same packages other bidders. In effect, the round appears to be little more than an exercise in vexatious bidding.
42. In MTS Allstream's view, if at the end of the clock round there are no unallocated licences, then the Department should skip the supplementary round and move directly to the assignment round.

**ii) Proposed Supplementary Round with Unallocated Licences**

43. The alternative and more likely outcome at the end of the clock rounds is that one or more licences will remain unallocated. As noted, in this case small and regional bidders will very likely face a significant disadvantage relative to large and national bidders when it comes to retaining their respective final clock packages in whole or in part.
44. To avoid this, MTS Allstream proposes that the Department limit the supplementary round to bidding on unallocated licences. In this way all bidders would retain their final clock packages, but would have the opportunity to potentially add one or more of the unallocated licences to their respective final clock packages (assuming some residual demand exists for some or all of the unallocated licences).

45. In MTS Allstream's view an efficient allocation of licences will have been achieved by the final clock round of the auction. At that point, as noted by Rogers, bidders cannot be willing to pay more for any combination of allocated products than their final clock package by the very design of the proposed activity rules. As to the unallocated licences, no bidders were prepared to include these licences in their final clock packages at the last bid price (*i.e.*, the reserve or higher price as the case may be).
46. However, under the rules proposed by the Department, and as explained above, large bidders would be in a position to leverage the fact that there are unallocated licences to acquire licences from other bidders (predominately small and regional players) who are not in a position to cover the cost of the "final clock package guarantee" included under the Department's CCA rules. While this may generate higher revenues from the auction it would have detrimental effects on regional competition and the deployment of mobile broadband services in rural areas in less population service areas. In fact, it is likely that some regional bidders could lose their final clock package in whole or part to a large national bidder despite the fact that the regional bidder was prepared to pay more for the regional spectrum in question than the large/national bidder, as the example provided above demonstrates.
47. Consequently, MTS Allstream considers that the supplementary round, in the case where unallocated licences remain, should be limited to bidding solely on the remaining unallocated licences. Otherwise, the auction is open to risk-free vexatious bidding on the part of bidders that will not only detract from the very truthful bidding that the Department hopes to incent, but also places at risk the final clock packages of smaller or regional players who have greater relative limits on their ability to guarantee their final clock packages.

**C. Other Proposed Bidding Rule Changes**

48. Several parties have suggested changes to the Department's proposed bidding rules. These include proposals such as (i) placing constraints on the combinations of licences a bidder would be eligible to bid on in a service area; (ii) changing the Department's proposed revealed preference rules; (iii) eliminating the Department's planned

placement of reserve price bids on each licence in the supplementary round; and (iv) changing the cap on the number of permitted supplementary round bids.

**i) Proposed Constraints of Eligible Licence Package Bids**

49. In its comments, Rogers suggested that the Department's proposed CCA bidding rules could incent or promote vexatious bidding or gaming behaviour. To address this potential problem, Rogers proposed that bidders should not be allowed to bid on non-contiguous spectrum packages which, in Rogers' view, have no apparent technological or commercial purpose. More specifically, Rogers proposed that bidders not be allowed to bid on packages that include:

(i) lower A block and C1 and/or C2 blocks, or

(ii) both the A and D/E blocks without also including a bid in the B/C block.

50. MTS Allstream does not support Rogers' proposal since it would unreasonably and unnecessarily constrain bidding. For instance, if the prices for prime spectrum licences became too high, some bidders might want to bid on the A block and D/E blocks. It is not clear why they should be prevented from doing so.

51. As proposed above, MTS Allstream believes that a more practical and feasible approach to mitigating the potential for vexatious bidding is by limiting the supplementary round to bidding on unallocated licences, in the case where unallocated licences remain at the end of the clock round, or eliminating the supplementary round altogether in the event there are no unallocated licences.

**ii) Proposed Revealed Preference Rules**

52. Rogers has also proposed that several changes be made to the revealed preference rules proposed by the Department. The proposals shift the balance of the auction outcome from the clock round to the supplementary round. The proposals appear to be aimed at providing bidders with more flexibility to adjust their valuations in the clock and supplementary rounds of the auction. MTS Allstream also notes that Rogers' proposals

are partly based on the fact that the proposed revealed preference rules differ in application between the clock round versus the supplementary rounds.<sup>24</sup>

53. Subject to concerns about the bias against small and regional bidders noted above, the Department's proposed auction format is intended to provide a means for bidders to preserve their final clock package. Rogers is suggesting that the Department move in the opposite direction. Rogers' proposal is not aimed at increasing efficiency, but rather increasing the flexibility of large/national bidders to steal licences from small and regional bidders in the supplementary round of the auction (assuming there are unallocated licences at the end of the clock round).
54. MTS Allstream does not support changes to the existing revealed preference rules. To the extent that there are concerns about inconsistencies in the revealed preference rules as applied in the clock and supplementary rounds, MTS Allstream submits that the supplementary round revealed preference rule be modified such that it is consistent with the clock round revealed preference rule, rather than the reverse as proposed by Rogers.
55. Rogers' primary objective in proposing significant changes to the revealed preferences rules, especially as applied in the supplementary round, is to make the outcome of the auction far more dependent on the supplementary rather than the clock round stage of the auction. Its proposal in this respect seems to be based in large part on previous European CCA experience.<sup>25</sup> However, compared to the Department's proposed rules, European auctions typically provided less flexibility in the clock stage of the auction – *i.e.*, a revealed preference rule did not apply. This meant that bidders were not necessarily able to bid in a straightforward manner in the clock round. As well, typically under European auction rules, supplementary bids for packages larger than the final

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<sup>24</sup> As Professor Cramton explained during the one-day CCA information session, the clock round revealed preference rule could have been applied to each previous clock round, regardless of whether or not a bidder had reduced its eligibility points in any given round. To provide some greater flexibility and help simplify the bidding process, a reasonable compromise was adopted under which the revealed preference rule would only be applied with respect to preceding rounds where the bidder had reduced its eligibility points. Rogers is proposing that the revealed preference rule be further simplified to provide bidders with even greater flexibility to shift to larger packages.

<sup>25</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 61.

clock package had to satisfy revealed preference only with respect to the last round in which the bidder had sufficient eligibility to bid on the package.

56. However, this European auction design has been seen as flawed. Indeed, as MTS Allstream understands, the Department's proposed CCA format and rules are aimed at improving on the design to allow for more straightforward, truthful and consistent bidding in both the clock and the supplementary rounds of the auction. Consequently, MTS Allstream submits that Rogers' proposals to significantly alter the Department's proposed revealed preference rules should be rejected.
57. That said, MTS Allstream proposes that in the event there are no unallocated licences then there be no supplementary round. And in the event there are unallocated licences, the supplementary round should be limited to bidding strictly on remaining unallocated licences.

**iii) The Department's Proposal to Place Reserve Price Bids on Each Licence**

58. Public Mobile raised a concern with the Department's proposal to place a bid on every licence in the auction at the opening bid price in the supplementary round.<sup>26</sup> Public Mobile argued that the Department's proposal would have two important negative consequences: first, the Department may win licenses although some bidders were willing to buy them, which would represent an inefficient outcome; and, second, the proposal may increase prices for some bidders, despite the fact that such price increases would not be related to the competitive pricing of spectrum. Public Mobile added that no other regulator in any jurisdiction using the CCA format, that Public Mobile reviewed, has adopted the approach proposed by the Department.<sup>27</sup>
59. Rogers raised a similar concern.<sup>28</sup> Both Public Mobile and Rogers suggested that the Department drop the proposal to include a series of single licence bids at reserve prices on each and every licence in the auction.

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<sup>26</sup> As indicated in the Consultation Document, Annex B, paragraphs 56-57.

<sup>27</sup> Public Mobile, comments on DGSO-002-12, 25 June 2012, paragraph 61.

<sup>28</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 70.

60. In MTS Allstream's view, the Department's proposal to place reserve price bids on each and every licence in the event that there are no unallocated licences at the end of the clock round is unreasonable.
61. MTS Allstream's proposals to eliminate the supplementary round in the event there are no unallocated licences at the end of the clock round and, in the event that there are unallocated licences, modify the supplementary round so that it is strictly limited to unallocated licences, eliminates or largely reduces Public Mobile and Rogers' concerns. In the latter case, the Department could place reserve price bids on all remaining unallocated licences as contemplated under the current proposal. However, if the Department wanted to limit the number of unsold licences at the end of the auction it could also decide to reduce the reserve price on some or all unallocated licences, especially in the case of licences that were not bid on during the clock round.
62. If, however, the Department chooses to either eliminate or reduce the reserve bid on each licence, including unsold licenses at the end of the clock round, MTS Allstream submits that the Department should ensure that doing so would not otherwise increase the cost of the guarantee bid required to secure bidders' final clock packages.

**iv) Maximum Number of Allowed Supplementary Round Bids**

63. Rogers also proposed that the maximum number of allowed bids in the supplementary round be increased from 500, as proposed by the Department, to 2,000. Rogers suggested that 500 bids may represent only a fraction of the number of packages in which a bidder might conceivably be interested, especially with 56 licence categories at play and the possibility unsold blocks.<sup>29</sup>
64. In MTS Allstream' view, the Department's proposed limit of 500 supplementary bids is more than reasonable. Bidders should easily be able to reflect the full set of packages in which they are truly interested with a cap of 500 supplementary bids. Indeed, keeping the number of bids limited to 500 (which is already a very large number) will better ensure that bidders focus on the packages of greatest value to them.

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<sup>29</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraphs 63-64.

65. Rogers' proposal appears to be better suited for supporting potential vexatious bidding, the very problem which Rogers is seeking to avoid. Moreover, raising the number of allowable bids excessively could become impractical and unworkable from a computational standpoint.

**D. Bid Increment Formulae**

66. MTS Allstream notes that the Department did not provide any specific guidance in the Consultation Document as to precisely how bid increments would be determined from one clock round to the next. Consequently, some parties provided suggestions as to how bid increments could be determined. SaskTel, for instance, suggested that the Department could shorten the auction by using large bid increments in earlier clock rounds (of between 5% and 20% depending on the level excess demand), while in later rounds, as demand begins to drop and bids are refined, increments could then be decreased in size (to between 3% and 10%, again, depending on the level excess demand).<sup>30</sup> Rogers suggested that bid increments should be predictable and not exceed to 5% to 10% or \$10 million in any given clock round.<sup>31</sup> More generally, Rogers also recommended that the Department issue its bid increment formula well in advance of the auction.
67. MTS Allstream agrees with the essence of SaskTel and Rogers' proposals. The Department should issue well in advance of the auction either its proposed bid increment formulae or, at a minimum, the bid increment principles it plans to follow during the auction so that there will be a reasonable degree of predictability as to bid increment from round to round. MTS Allstream also agrees that while larger increases would be appropriate in early rounds of the auction, the magnitude of bid increments in later rounds should decline in later rounds as the level of excess demand decreases.

**E. Second-Price Rule**

68. The Department proposes to use a second-price rule to determine the prices to be paid by winning bidders under which it would apply bidder-optimal core prices and use the

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<sup>30</sup> SaskTel, comments on DGSO-002-12, 25 June 2012, paragraph 65.

"nearest Vickrey" approach in determining both the base prices and the assignment prices. Under the Department's proposal, the weighting methodology would be based on the relative price of each bidder's package evaluated at opening bid prices.<sup>32</sup>

69. In MTS Allstream's view, the use of a weighted approach for the determination of base and assignment prices as proposed by the Department is fair and reasonable.
70. While there appears to be no opposition to a second-price rule, a number of parties have proposed modifications to the Department's weighting methodology used in the determination of base and assignment prices.
71. Rogers suggested that the proposed weighting rule could introduce distorted bidding incentives for likely winners of larger packages that ultimately harm winners of smaller packages. Rogers claimed that bidders for larger packages would face stronger bid shading incentives than bidders for smaller packages and, if larger bidders lower their bids in response to these incentives, prices would rise disproportionately for smaller bidders. Rogers recommended, therefore, that the Department adopt a simple unweighted nearest Vickrey approach as it claims has been done in all European CCAs to date.<sup>33</sup>
72. In contrast, Public Mobile and others generally support the Department's proposal of using a weighted nearest Vickrey approach for determining prices, however are suggesting that some derivation of the clock round prices or the final clock round prices be used as the weight.<sup>34</sup>
73. Rogers' proposal to move to an unweighted approach is based on the hypothetical prospect that larger bidders may shade some of their bids and by doing so potentially cause some smaller bidders to pay a higher price than otherwise for their packages. However, to the extent larger bidders engage in bid shading, the greater risk is that they lose their desired package altogether. There is always a possibility a bidder (large or small) may engage in some degree of bid shading but, given the CCA format and rules,

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<sup>31</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraphs 85-87.

<sup>32</sup> Notice No. DGSO-002-12, Annex E, paragraph 6(d).

<sup>33</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraphs 69 and 73.

doing so raises the bidder's risk of losing its desired package. Therefore, there is no need to revisit the Department's proposed weighted approach to price determination in order to address what amounts an entirely hypothetical concern and also one that could just as easily apply to both large and small bidders.

74. In addition, MTS Allstream does not support the use of final clock round prices to determine the weights for Vickrey price determination purposes. MTS Allstream does not agree that final clock round prices would necessarily be reflective of "market prices", as suggested by Public Mobile and others. The spectrum caps imposed on all bidders, including more restrictive caps placed on large service providers, would significantly bias final clock round prices. Consequently, using final clock round prices introduces a potentially significant bias into the winning price determination calculation.
75. Therefore, MTS Allstream supports the Department's proposal to rely on opening bid prices for weighting purposes when determining base and assignment prices under the second price rule.

#### **F. Information Disclosure During and Post Auction**

76. The Department indicated that it intends to use an anonymous bidding process, under which each bidder would only be informed of the aggregate demand for each product from the previous round and the prices for the next round. In addition, at the end of the allocation and assignment stages, bidders would be informed of their own winning packages along with the price to be paid for their winning package.
77. At the conclusion of the auction, the Department proposed to disclose the following information:
- the list of winning bidders, licences won and prices to be paid;
  - the bids submitted by each bidder in every clock round, including their identity;
  - the supplementary bids submitted by each bidder, including their identity; and

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<sup>34</sup> Public Mobile, comments on DGSO-002-12, 25 June 2012, paragraphs 62-65; TBayTel, comments on DGSO-002-12, 25 June 2012, paragraph 13.

- the assignment bids submitted by each bidder, including their identity.
78. MTS Allstream supports the Department's proposed measures in this respect.
79. Bell took issue with the Department's proposal to use an anonymous bidding process. Bell suggested that greater information disclosure would promote the efficient assignment of licences since bidders will be able to make more informed bids. To this end Bell wants to know what packages other bidders are bidding on at each round in order to identify combinations of spectrum blocks that enhance the overall value informing its bids in the clock rounds and supplementary round.
80. Bell purports that this level of disclosure at each round would reduce incentives for gaming, while at the same claiming that any incentives for collusion would be very limited by the CCA design.<sup>35</sup>
81. The Department should reject Bell's proposal. Contrary to Bell's assertions, its proposal would clearly have the effect of promoting gaming and collusion.
82. Anonymous bidding appears to be at the core of the CCA design and, as far as MTS Allstream is aware, all previous CCAs to date have had anonymous bidding. Bidders have only been made aware of the level of excess demand. Anonymous bidding can be expected to significantly reduce incentives for and the ability of bidders to game or engage in collusive behaviour during the auction. Bell's proposal that the Department disclose each auction participant's bids on a round-by-round basis would have the opposite effect.
83. Public Mobile disagreed with the Department's post-auction information disclosure proposals. In its view, the Department's proposals would result in the disclosure of considerable commercially sensitive information revealing bidding strategies and goals that can give competitors significant insight into a company's strategic direction.
84. In MTS Allstream's view, the information the Department proposes to disclose after the auction would not be expected to cause any bidder significant direct harm, especially in view of the fact that all bidders will be treated equivalently. The disclosure serves the

greater public interest because it would enable all bidders to analyze the bids made during the auction and to satisfy themselves of the accuracy of the outcome of the auction. The information would also be of great value for developing and improving designs for future spectrum auctions, and it would allow parties to provide informed suggestions as to how to improve the 2500 MHz auction based on lessons learned for the 700 MHz auction.

85. MTS Allstream would add in this respect that there are significant differences between the 2500 MHz and 700 MHz spectrum, so that bidding information from one auction would not be expected to reveal information about potential bidding strategies for the other auction.
86. MTS Allstream would also note that the release of full bid information is standard in some other jurisdictions, including the UK.<sup>36</sup>

### III. AUCTION PROCESS RELATED MATTERS

87. There were a number of auction process related proposals made by various parties in their comments. MTS Allstream addresses some of these proposals below. Once again, MTS Allstream notes that failure to address any specific auction process related modification proposal does not imply that MTS Allstream is necessarily in agreement with any such proposal.

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<sup>35</sup> Bell, comments on DGSO-002-12, 25 June 2012, paragraphs 37-43.  
<sup>36</sup> Notice of Ofcom's proposals to make regulations in connection with the award of 800MHz and 2.6GHz, 24<sup>th</sup> July 2012. <http://stakeholders.ofcom.org.uk/binaries/consultations/regs-800mhz/summary/condoc.pdf>

2.93 After the grant of licences, and the payment of refunds to winning bidders, Ofcom will complete the award process by publishing on the Ofcom website details of the bids made, the names of all the licensees, the details of the frequency ranges comprised in the licences awarded and the licence fees paid.

Auction of Spectrum 10GHz, 28GHz, 32GHz, 40GHz, 7 August 2007:  
<http://stakeholders.ofcom.org.uk/binaries/spectrum/spectrum-awards/completed-awards/10-28-32-40-ghz-awards/10-40IM.pdf>

4.149 After the grant of Licences and the payment of refunds to Winning Bidders, Ofcom will complete the Award Process by publishing on the Ofcom Website details of all Valid Principal Stage Bids and all Valid Assignment Stage Bids and Valid Assignment Stage Bids made by each Bidder, the names of all Licensees, the details of the Paired Frequency Ranges comprised in the Licences awarded and the Licence Fees paid.

**A. Supplementary Bidding Process**

88. Rogers noted that the Department has provided relatively few details regarding the supplementary bidding process. As a result, Rogers offered a number of suggestions to fill this gap, including the following:
- (a) bidders use the Department's planned online tool to submit supplementary bids, which should also allow bidders to edit their choice of package bids within the system;
  - (b) the online tool provides an easy way for a bidder to compare and verify that the list of bids appearing on the online system is identical to the list of bids prepared offline;
  - (c) bidders be provided three business days following the conclusion of the clock round for bidders to prepare their supplementary bids;
  - (d) the Department provide a detailed user guide explaining the process for uploading and editing supplementary bids at least three months before the start of the auction; and
  - (e) the Department provide bidders access to the template for uploading supplementary bids also at least three months before the start of the auction.<sup>37</sup>
89. MTS Allstream supports all of these proposals relating to the supplementary bidding process.

**B. Proposed Pre-Auction Deposits**

90. Bell proposed that the Department modify the pre-auction deposit that over the course of the auction, prior to the commencement of each day's bidding, bidders provide the Department with a financial guarantee via a letter of credit equal to 100% of the value of their previous day's last package bid. According to Bell, such a measure would provide a means to discourage bidders from engaging in gamed bidding designed solely to drive

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<sup>37</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraph 95.

up the price of spectrum that they have no meaningful interest in acquiring. Further, according to Bell, requiring bidders to provide a financial guarantee equal to 100% of the value of their previous day's last package bid would incent bidders to determine their overall budget in advance of the auction and to bid only on spectrum blocks they desire.

91. Bell provided no evidence in support of the need for such a measure. MTS Allstream considers that the proposal would add unnecessary complexity and administrative burden to the auction. Moreover, the measure appears designed to do little more than handicap smaller bidders. MTS Allstream therefore submits that the Department should dismiss this proposal.

**C. Other Auction Process Related Matters**

**i) Extension Rights**

92. Rogers has proposed that each eligible bidder should be granted three extension rights to extend a bidding round by 60 minutes at a time. It provided detailed provisions relating to the use of extension rights in its comments.<sup>38</sup>
93. Given the large number of bidders likely to be participating in the 700 MHz auction, this proposal could add numerous significant delays to the auction, and therefore should be rejected.

**ii) Release of the Online Bidding and Winner Determination Tools**

94. Rogers also proposed that the Department's online bidding and winner determination tools should be made available no less than 3 months before the auction.<sup>39</sup>
95. MTS Allstream supports this proposal.

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<sup>38</sup> *Ibid.*, paragraph 90.  
<sup>39</sup> *Ibid.*, paragraph 106.

**iii) Mock Auctions**

96. Xplornet proposed that there be at least two mock auction sessions and, further in this respect, that the closure date for potential comments on the auction process and CCA rules be set at least one month after the mock auction sessions.
97. MTS Allstream agrees that at least two mock auction sessions would be beneficial, but is concerned that further consultation would delay the auction considerably.

**iv) Bid Payments**

98. In its comments, Mobilicity proposed that the Department consider allowing new entrants to make winning bid payments on an installment rather than lump-sum basis.<sup>40</sup>
99. In MTS Allstream's view, the Department should reject Mobilicity's proposal. For one, it would be entirely inappropriate to allow a subset of winning bidders to make their payments on an installment basis while others are required to pay in full immediately. In addition, and however the term "new entrant" is defined, it would necessarily allow for new entrants without any network to be eligible bidders. As a result, the Mobilicity concern relating to the risk of speculative bidding would not be mitigated as suggested. In any event, the risk of a speculative bidding does not rest solely on whether the bidder has some network facilities in place or not.

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<sup>40</sup> Mobilicity, comments on DGSO-002-12, 35 June 2012, paragraphs 119-20.

### III. **BIDDER PARTICIPATION – AFFILIATED AND ASSOCIATED ENTITIES**

100. The Department proposed to change the rules relating to “associated entities” in order to allow these entities to participate separately in the auction and have the spectrum caps apply separately to them, provided that they demonstrate an intention to compete in the licence areas where they both intend to bid and to continue to function as competitors to a level satisfactory to Industry Canada.<sup>41</sup>
101. In the view of MTS Allstream, if the Department decides to allow associated entities to participate separately in the auction and to have the spectrum caps applied to them separately, certain ground rules and safeguards should be established in order to maintain the integrity of the auction as well as the auction application process. These safeguards and rules are discussed in greater detail below.

#### a) **Types of Agreements that Create Associations**

102. Several parties to this proceeding, including Xplornet, Mobilicity and Rogers have noted that there are a number of different agreements that could create an association between two or more parties, including joint marketing agreements, spectrum sharing agreements, non-competition agreements, joint network build agreements and joint bidding agreements.<sup>42</sup> Given the wide-ranging nature of these agreements and the potential for these agreements to create an association between two or more parties, it is important not to limit the definition of associated entities to specific types of agreements.
103. By the same token, however, the definition of “associated entities” should not be so far-reaching as to capture every single agreement between two potential bidders in the auction. For example, MTS Allstream agrees with Bell and TELUS that the definition should be limited to the spectrum that is actually the subject of the auction (in this case, 700 MHz spectrum).<sup>43</sup> The definition should also exclude agreements that carriers must enter into in order to allow their customers to roam on to each others’ networks and/or

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<sup>41</sup> Consultation Document, paragraph 70.

<sup>42</sup> Mobilicity, comments on DGSO-002-12, 25 June 2012, paragraphs 30-32; Rogers, comments on DGSO-002-12, 25 June 2012, 116(d); Xplornet, comments on DGSO-002-12, 25 June 2012, paragraphs 31, 35.

where they have co-located their facilities in accordance with the rules for mandatory tower and site sharing. Joint backhaul agreements would also fall into this category of exempt agreements. Much of the discussion relating to associated entities was focussed on parties that have entered into joint network build arrangements. MTS Allstream submits that unless a joint build or joint equipment purchase agreement pertains specifically to the acquisition or use of 700 MHz spectrum, these agreements should also be excluded from the definition of associated entities.

**b) Treatment of Joint Bidding Agreements**

104. It is not entirely clear whether parties who enter into joint bidding agreements or other similar agreements would be permitted to participate separately in the auction and to have the spectrum caps apply separately to them if they entered into those agreements prior to the auction application deadline.
105. MTS Allstream submits that parties that have entered into agreements or understandings of this nature prior to the auction should be required to participate in the auction as a single bidder and to have a single spectrum cap applied to them. The reason why it is important to have such a rule is because these parties are not true “competitors” of each other in the auction as required under the rules which prohibit collusion.
106. Also, allowing these parties to participate separately in the auction would undermine several of the principles which the Department is seeking to promote in the upcoming auction of 700 MHz spectrum, including the principles of anonymous bidding and price discovery. As Rogers noted:

Because bidding decisions are simple (i.e., nominating which products are demanded at a certain price) and information made available each round limited, it is quite possible to coordinate bidding through agreements or understandings about bids that will be made. This might be used to avoid bidding against a particular rival, to coordinate spectrum won (e.g. between upper or lower blocks) or to bid in concert to harm a rival...

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<sup>43</sup> Bell, comments on DGSO-002-12, 25 June 2012, paragraphs 61-62; TELUS, comments on DGSO-002-12, 25 June 2012, paragraph 44.

Furthermore, with the proposed limited transparency proposed for this auction, any bidder who has privileged knowledge of what another bidder is likely to do has a greater ability to make inferences from the information provided each round. This is a fundamental unfairness that results from any arrangement or understanding between bidders about bid strategy, even if there is no communication between those bidders each round.<sup>44</sup>

107. Given these concerns, MTS Allstream submits that any parties that have entered into joint bidding agreements must be treated as a single bidder in the auction and have a single cap applied to them. If one of the parties to the agreement is a “large wireless service provider”, as that term is defined in the Consultation Document, then the cap that should be the same as the cap that applies to large wireless service providers.
108. Among the types of agreements that fall into the category of joint bidding agreements are agreements and understandings pursuant to which the parties agree to:
  - (a) bid for particular blocks or frequencies, or particular parts of the band;
  - (b) continue bidding up to a particular price;
  - (c) switch bidding activity between block categories at particular prices; and
  - (d) any other agreements or understandings relating to the acquisition of 700 MHz spectrum in the auction and/or the parties bidding strategies relating to the acquisition of such spectrum.

**c) Whether Associated Entities Should Share a Cap**

109. MTS Allstream submits that unless associated entities have entered into a joint bidding agreement, they should be permitted to participate separately in the auction and to have the caps apply separately to them, provided that they demonstrate an intention to compete in the licence areas where they both intend to bid and to continue to function as competitors to a level satisfactory to Industry Canada.
110. Rogers has proposed two additional rules: (i) associated entities should not be allowed to participate as a single bidder in the auction unless they share a single cap; and (ii) if

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<sup>44</sup> Rogers, comments on DGSO-002-12, 25 June 2012, paragraphs 112-13.

associated entities participate separately in the auction, they should not be able to bid on more than 20 MHz of prime spectrum in any given licence area. MTS Allstream supports each of these proposals.

**d) Criteria to be Considered in Determining whether Entities are Competing**

111. Industry Canada has proposed that associated entities may be permitted to compete separately in the auction and to have the spectrum caps applied separately to them if they can demonstrate to a level satisfactory to the Department an intention to compete in the licence areas where they both intend to bid and to continue to function as competitors.
112. Most parties to this proceeding support this proposal, including WIND, Rogers, Bell, TELUS, Quebecor and SaskTel.
113. In its 25 June 2012 Comments, Bell provided a list of criteria that the Department could consider in order to determine whether two parties are competing or intend to compete with each other, including the following:
  - Marketing and advertising materials;
  - Information regarding existing (and planned) retail outlets in the relevant area;
  - Evidence of differentiation between the entities in question, including differentiation in respect of:
    - the array of handsets and other devices being sold respectively by them;
    - their prices and service plans;
    - value-added services (e.g., mobile content) each may offer;
    - independent user interfaces available on their phones; and
    - new service launches.
114. MTS Allstream submits that this is a useful list; with the qualification that the ecosystem for devices is common for certain bands and therefore criterion based on differences in

device lineup or device user interfaces may not be as useful in determining whether two entities intend to compete against each other as some of the other criteria.

115. For its part, TELUS has suggested that the Department should rely on criteria established by the Competition Bureau and the CRTC in *Review of the Regulatory Framework*, Telecom Decision CRTC 94-19 to determine whether two entities are competing against each other in a given service area.<sup>45</sup> MTS Allstream submits that reliance on these criteria would also be acceptable.
116. Quebecor has proposed that the Department should allow parties that do not intend to compete with each other to participate separately in the auction and have the spectrum caps apply separately to them. MTS Allstream is opposed to this proposal because it is tantamount to allowing parties that have a joint bidding agreement to bid separately in the auction. In the view of MTS Allstream, unless parties have demonstrated an intention to compete with each other in the downstream market and, indeed, in the auction itself, then they should not be permitted to participate separately in the auction or to have the spectrum caps apply separately to them.
117. If two or more parties do not wish to compete with each other but nonetheless wish to participate in the auction, they are entirely free, under the rules that have been proposed by the Department, to form an association and bid in the auction as a single bidder. Moreover, if they wish to divide up service areas after the auction is over, once again, there is nothing in the rules as proposed by the Department that would prevent these parties from doing so.

**e) Process and Information Disclosure Matters**

118. Several parties to this proceeding have suggested changes to the process proposed by the Department for determining whether two or more parties have formed an association, including the following:
  - (a) Increasing the period of time before the auction application deadline in which affiliated and associated entities must submit details of their

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<sup>45</sup> TELUS, comments on DGSO-002-12, 25 June 2012, paragraph 50.

affiliations/associations to the Department from one month to up to four months;

- (b) Establishing an advance ruling process that would provide parties with the opportunity to know, in advance of the auction application deadline, whether any of their agreements/arrangements result in the creation of an association and, if so, whether they will be permitted to bid separately in the auction and have the auction caps apply separately to them;
  - (c) Establishing a public comment period on proposed affiliated/associated entities;
  - (d) The type of information that should be disclosed on the public record in relation to affiliated and associated entities.
119. MTS Allstream supports giving potential bidders sufficient time in advance of the auction to structure their commercial relationships with other potential bidders with a degree of certainty by way of an advance ruling process, and also giving potential bidders sufficient time to restructure their relationships based on any such advance ruling, if needed.
120. Parties should therefore be required to file details of their affiliations and associations three months before the auction application deadline, and, at the same time, request an advance ruling on the status of that relationship.
121. Given the commercially-sensitive nature of such relationships, however, MTS Allstream does not support a public comment period, and recommends that Industry Canada conduct its review of potential associations under the *Telecommunications Act* confidentiality framework as suggested by Bell.

**f) Prohibition on Collusion**

122. At paragraph 79 of the Consultation Document, Industry Canada proposed a revision to its anti-collusion rules in order to reflect the Department's proposal to allow associated entities to participate as separate bidders in the auction.
123. For the reasons noted above, MTS Allstream submits that associated entities that have entered into joint bidding agreements or understandings should not be permitted to

participate separately in the auction or to have the spectrum caps apply separately to them. In order to reflect this fact, MTS Allstream recommends that affiliated and associated entities be treated as a single “applicant” for auction purposes and that the Department ensures that its rules prohibiting collusion reflect this principle.

#### **IV. CONDITIONS OF LICENCE FOR SPECTRUM IN THE 700 MHZ BAND – RURAL ROLL-OUT**

124. The rural deployment requirements described by the Department would require that any bidder that wins two or more paired blocks of spectrum roll-out to 90 percent of the population covered by its HSPA footprint within five years and to 97 percent within seven years. In addition, there is a lower, general deployment requirement that attaches to every licence and licensee.
125. Parties have identified two primary concerns with the rural deployment obligations described by the Department: first, that these obligations will not increase the wireless footprint into areas that are not currently served by wireless carriers and, second, that the deployment obligations are not uniform for all licensees. Previously, MTS Allstream proposed that the Department attach detailed rural deployment obligations to the lower B and C blocks, regardless of who wins this spectrum. MTS Allstream’s previous submission would address both of the primary concerns raised by parties in this proceeding.

##### **A. Limited Rural Deployment**

126. Numerous parties noted in their comments that the rural deployment conditions of licence described by the Department would not in fact advance the deployment of wireless services to rural areas of Canada. This is contrary to the Department’s goal that the benefits of sustained competition and robust investment in wireless telecommunications services be available “to Canadians across the country, including those in rural areas, in a timely fashion”.<sup>46</sup>
127. For example, SaskTel explained:

SaskTel has already stated, in other forums, that the proposed condition of license does very little, if anything, to enhance rural coverage. SaskTel would contend that reference to these conditions as promoting rural investment is misleading at best. Even if the rural service obligations were rigorous, the spectrum trigger in the proposed rules would impact very few potential buyers of 700 MHz spectrum.

First, the condition only applies to bidders who obtain two paired blocks of spectrum, thus greatly narrowing its potential scope, especially given the proposed spectrum caps for incumbents.

Second, the condition only requires those bidders that are impacted to deploy spectrum to a percentage of their current HSPA coverage. In Saskatchewan, for example, Rogers would have to provide some coverage in Regina and Saskatoon, and TELUS, Bell, WIND and any other entrant would have no obligation at all. SaskTel's obligation, were we to win two blocks would be extensive but that is an obligation we would willingly accept. If the "obligation", as proposed, applies to any other company, it will be meaningless and do nothing at all for rural Saskatchewan.<sup>47</sup>

128. SaskTel's concerns were echoed by many parties and there was wide consensus that the deployment obligations described by the Department will not result in any appreciable increase in the availability of wireless services in Canada's rural areas.<sup>48</sup>

#### **B. Very different licences proposed for different licensees**

129. The second major concern that parties have expressed with the rural deployment condition of licence, as described by the Department, is that it varies significantly depending on the identity of the licensee. Incumbent local exchange carriers (ILECs), which have the largest HSPA footprints, would be required to roll-out to a significantly greater area in a significantly shorter period of time than a new entrant in the Canadian wireless market or an existing provider whose existing HSPA footprint does not extend beyond urban areas.

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<sup>46</sup> Consultation Document, paragraph 4.

<sup>47</sup> SaskTel, comments on DGSO-002-12, 25 June 2012, comments on DGSO-002-12, 25 June 2012, paragraphs 52-53.

<sup>48</sup> See WIND comments on DGSO-002-12, 25 June 2012, paragraph 65; SSI comments on DGSO-002-12, 25 June 2012, paragraph 38; Eastlink comments on DGSO-002-12, 25 June 2012, paragraph 53; Ontario Ministry of Agriculture, Food and Rural Affairs, comments on DGSO-002-12, 25 June 2012, page 2.

130. For example, TELUS requested:

... that the Minister address certain unintended gaps in the deployment requirements that would excuse certain existing and potential spectrum holders from any meaningful deployment requirement in this very scarce and valuable band.<sup>49</sup>

131. Bell pointed out the same problem, although it focused on the example of a large foreign bidder that is new to the Canadian market who would not have any rural deployment obligation.<sup>50</sup> For its part, TBayTel noted that the rural deployment requirements, along with the Department's proposal to mandate in-territory roaming, "punish those carriers who have infrastructure already in place".<sup>51</sup> In contrast, "[t]hose carriers sitting on AWS and/or PCS licenses for years without building networks are now rewarded by the mandatory in-territory roaming regulations."<sup>52</sup>

### **C. Parties' Proposals**

132. While many parties identified the shortcomings of the rural deployment obligations identified by the Department – that they would not in fact increase the wireless footprint in rural areas and that the obligations would be significant for some licensees while non-existent for others – a number of the resulting proposals made by these parties would also not effectively address the two concerns.

133. For example, WIND proposed expanding the obligation to require licensees of two paired blocks to deploy service using 700 MHz spectrum to 103% of the licensee's existing footprint within seven years.<sup>53</sup> This would still treat different licensees very differently and would not address the fact that there will be no meaningful rural deployment required unless the ILEC in the region acquires two paired 700 MHz licences.

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<sup>49</sup> TELUS comments on DGSO-002-12, 25 June 2012, paragraph 79.

<sup>50</sup> Bell comments on DGSO-002-12, 25 June 2012, paragraphs 13-14. See also paragraphs 105-106.

<sup>51</sup> TBayTel comments on DGSO-002-12, 25 June 2012, paragraph 44.

<sup>52</sup> *Ibid.*

<sup>53</sup> WIND comments on DGSO-002-12, 25 June 2012, paragraphs 60-65.

134. SaskTel proposed imposing the greater roll-out obligation on all licensees that obtain at least one paired block of spectrum and that this obligation should apply to a percentage of the licensee's overall facilities-based coverage, rather than just HSPA coverage.<sup>54</sup> SaskTel also proposed that the general deployment condition of licence require licensees to cover at least 70 percent of the population of a licence area, rather than the 20-50 percent requirements currently set out by the Department.<sup>55</sup> This would ensure that each licensee roll-out to at least 70 percent of the population of a licence area, which may or may not include rural areas, depending on the province. However, the more aggressive roll-out obligation would still apply very differently to different licensees, with new entrant licensees of those with a small existing footprint effectively limited to the general obligation, even if they were to obtain a paired block of spectrum.
135. Similarly, while Eastlink's proposal to require all licensees in the 700 MHz band to cover 50% of the population in each Tier 4 area included within the licence area within ten years would result in wireless deployment in areas that are currently unserved in some instances, in other instances that would not require any incremental wireless coverage.<sup>56</sup>
136. Some parties suggested that the Department should implement rules for spectrum-splitting or making unused spectrum available for other uses.<sup>57</sup> MTS Allstream notes that the Department already has a process in place for spectrum sharing through the creation of subordinate licences.
137. The proposals of the Ontario Ministry of Agriculture, Food and Rural Affairs and Dr. Helen Hambly Odame of the University of Guelph that the Department should to set aside a portion of the revenues generated from the 700 MHz spectrum auction to fund deployment in rural areas would likely be the most effective means of ensuring that there is new deployment to areas that are currently not served.<sup>58</sup> However, this solution would require the political buy-in of the federal government and cannot be achieved through

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<sup>54</sup> SaskTel comments on DGSO-002-12, 25 June 2012, paragraphs 56-57. MTS Allstream assumes that SaskTel's reference to a bidder's "overall facilities-based coverage" refers to wireless coverage and does not include wireline coverage.

<sup>55</sup> SaskTel comments on DGSO-002-12, 25 June 2012, paragraph 59.

<sup>56</sup> Eastlink comments on DGSO-002-12, 25 June 2012, paragraph 55.

<sup>57</sup> Dr. Helen Hambly Odame, comments on DGSO-002-12, 24 June, 2012; TELUS, comments on DGSO-002-12, 24 June 2012, paragraphs 85-91; and EORN, comments on DGSO-002-12, 24 June 2012, page 5.

the conditions of licence alone. A model to fund expansion into unserved areas that is similar to the contribution fund initiated by the Canadian Radio-television and Telecommunications Commission to subsidize the high cost of local service in rural and remote areas, where all licensees contribute a small percentage of revenues to a central fund, might be more feasible than setting aside a portion of revenues generated from the auction. However, this too would require significant consultation to devise the most efficient criteria and administration for such a fund.

#### **D. MTS Allstream's Proposal**

138. MTS Allstream proposed that the Department should attach a specific rural commitment to the lower B and C blocks, regardless of who wins those licences.<sup>59</sup>
139. For example, this obligation could require licensees of the lower B or C blocks to deploy spectrum to 90 percent of the population within the Tier 2 licence area and to a geographic area equal or greater in size to the geographic area covered by all service providers within the relevant tier today, within ten years of the issuance of the licence. To recognize the added burden of the rural deployment obligation on these licensees, MTS Allstream also proposes that the mandated in-territory roaming on the networks of these licensees be suspended for a five-year period.
140. This proposal would address the main concerns raised by parties regarding the rural deployment obligations described by the Department.
141. For most potential licensees, a requirement to deploy to 90 percent of the population of the licence area and a geographic area equal in size to the area covered by wireless service providers today would entail meaningful rural deployment, and, for example, be consistent with the proposal of the Ontario Ministry of Agriculture, Food and Rural Affairs that the Department "should consider modifying rural deployment requirements to

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<sup>58</sup> Ontario Ministry of Agriculture, Food and Rural Affairs, comments on DGSO-002-12, 25 June 2012, page 2 and Dr. Helen Hambly Odame, comments on DGSO-002-12, 24 June, 2012.

<sup>59</sup> MTS Allstream comments in response to *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*, SMSE-018-10, 28 February 2011, paragraphs 111-12.

ensure that at least one 700 MHz spectrum licensee will have to meet the rural deployment requirements in each service area.”<sup>60</sup>

142. In addition, all licensees would be treated equally under either proposal, based on the spectrum they obtain. All licensees in the lower B and C blocks would be treated equally and bidders on lower B or C spectrum would bid on that spectrum knowing that greater obligations would attach to those spectrum blocks. Moreover, since the lower B and C blocks may be the most desirable and valued spectrum blocks in the 700 MHz band (by reason of handset availability combined with the possibility of roaming revenues), it makes the most sense to impose a greater rural deployment obligation on licensees of this spectrum.
143. MTS Allstream notes that such an obligation would be consistent with the very recent decision of Ofcom in the United Kingdom (UK) that one of the 800 MHz lots of spectrum that will be auctioned at the end of 2012 will carry an obligation to provide a mobile broadband service for indoor reception to at least 98% of the UK population by the end of 2017 at the latest, which Ofcom estimates will also provide outdoor coverage sufficient to reach approximately 99.7% of the UK population.<sup>61</sup> In addition, the holder of this spectrum will be required to cover an area within which 95% of the population of each of England, Scotland, Wales and Northern Ireland live.<sup>62</sup> Although these obligations attach to one of the 800 MHz lots that will be auctioned, the obligation may be met by the licensee using any frequencies that the licensee is permitted to use.<sup>63</sup>
144. While the population density in the UK is much greater than in Canada, many of the policy considerations noted by Ofcom in imposing this obligation on one lot of the spectrum available in the auction are equally applicable in Canada, including, most fundamentally, Ofcom’s core policy aim “to ensure that the benefits of next generation mobile services become available to the vast majority of consumers and citizens in a timely manner”.<sup>64</sup> Ofcom also noted that “[t]he reduced valuation of the licence (if any)

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<sup>60</sup> Ontario Ministry of Agriculture, Food and Rural Affairs, comments on DGSO-002-12, 25 June 2012, page 2.  
<sup>61</sup> Ofcom, *Assessment of future mobile competition and award of 800 MHz and 2.6 GHz*, Statement, 24 July 2012, paragraphs 5.29 - 5.33.

<sup>62</sup> *Ibid.*, paragraph 5.49.

<sup>63</sup> *Ibid.*, paragraph 5.40.

<sup>64</sup> *Ibid.*, paragraph 5.41.

reflects a public service obligation imposed on the successful bidder, and any competitive advantage to the bidder will be as a result of the bidder's own investment in meeting the obligation."<sup>65</sup>

145. Ofcom has also determined that "no wholesale access obligations will be attached to that licence", in part on the basis the commercial incentive for other operators to accelerate their roll-out would be undermined if "rival operators would no longer need to compete with the obligation holder for coverage, but could instead rely on the obligation holder to provide coverage."<sup>66</sup>
146. MTS Allstream's proposal to require licensees of the lower B or C blocks to deploy spectrum to 90 percent of the population within the Tier 2 licence area and to a geographic area equal or greater in size to the geographic area covered by all service providers within the relevant tier today is based on many of the same considerations cited by Ofcom. Like Ofcom's determination that no wholesale access obligation will be attached to the obligation holder, MTS Allstream's proposal that the mandated in-territory roaming on the networks of these licensees be suspended for a five-year period would recognize the additional investment required by the lower B and C licensee(s) and encourage, in some instances, other licensees to expedite their own deployment plans.
147. In sum, MTS Allstream submits that, similar to Ofcom's determinations, the most practical and equitable means of achieving meaningful 700 MHz wireless deployment in rural areas in Canada would be to attach a meaningful roll-out obligation to the lower B and C spectrum blocks.

\*\*\*END OF DOCUMENT\*\*\*

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<sup>65</sup> *Ibid.*, paragraph 5.61.

<sup>66</sup> *Ibid.*, paragraphs 5.57-5.62.