

***Canada Gazette* Notice Reference No. DGSO-002-12**

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

Published in the Canada Gazette Part 1

Dated 5 May 2012

Reply Comments

of

Globalive Wireless Management Corp.

(WIND Mobile)

25 July 2012

(A) **INTRODUCTION**

1. Globalive Wireless Management Corp. (“WIND”) is pleased to provide reply comments in response to *Canada Gazette*, Part 1, 5 May, 2012, Notice Reference No. DGSO-002-12: Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band (the “Consultation”). WIND is only replying to specific items raised by other parties in the Consultation.

(B) **COMBINATORIAL CLOCK AUCTION FORMAT**

2. As noted in our initial comments, WIND is generally in favour of the auction rules and the Combinatorial Clock Auction (“CCA”) format that Industry Canada has outlined in the Consultation. The proposed format provides a solid auction structure with a proven track record in other jurisdictions. Moreover, the proposed auction includes enhancements that should improve upon the CCAs that have already been successfully implemented worldwide. WIND generally urges Industry Canada to disregard auction structure changes suggested by other parties to this Consultation unless they have provided clear proof that the structure proposed in the Consultation will lead to inconsistencies with the policy objectives set out at the beginning of the Consultation. Moreover, Industry Canada should not be seeking to balance wins and losses for the various parties to create the appearance of general accommodation. Rather, the auction design should be set to achieve the policy objectives in the most efficient way possible. Our specific reply comments on various aspects of the Consultation are set forth below.

i. Proposed Changes to the Supplementary Round and the Revealed Preferences Rule

3. A number of regional wireless carriers have expressed concerns about how the rules governing bidding in the Supplementary Round¹ would require them to pay a lot for any large swaths of excess supply vacated by a nationwide or near-nationwide bidder in the Supplementary Round. For example, SaskTel is opposed to the CCA format in general, but alternatively suggests a rule that every bidder has to win a package that includes at least its final clock round package. SaskTel also proposes a second alternative by allowing companies to guarantee successfully maintaining their winning clock round packages by restricting bidding in the Supplementary Round only to unallocated licences within geographic Tiers on which it is active in the last clock round. For example, to win its final clock round packages, a regional player active only in Alberta would need only increase its bid in the final clock round by the amount of any unallocated licences in Alberta alone.²
4. MTS Inc. and Allstream Inc. (collectively “MTS Allstream”) and Bragg Communications Inc. (carrying on business as Eastlink (“Eastlink”)) also argue that the rules favour large, national bidders interested in winning large packages over smaller regional bidders, including new entrants, interested in specific licences. MTS Allstream argues “a national bidder may end up

¹ The Supplementary Round, as defined in the Consultation, is a single round where bidders have the opportunity to make additional bids for packages of licences at prices that they set, subject to limits that are based on their clock round bids.

² SaskTel Comments at paragraph 37.

with a particular regional licence or licences by simply tweaking its supplemental round bids to include a package that contains the regional bidder's licence(s).³ Eastlink reflects similar concerns about regional clock round high bids being overturned and that "this uncertainty poses considerable risk for regional service providers."⁴

5. Similarly, Quebecor Media Inc. and Videotron G.P. (collectively, "**Quebecor Media**"), while not opposed to the CCA auction format, expresses concerns that the minimum incremental bid (the "minimum safety increment") that a given bidder must place in the Supplementary Round to guarantee its final clock package is constant across bidders, i.e. completely independent of the magnitude of an individual bidder's final clock bid."⁵ Quebecor Media has proposed several bidding constraints in the supplementary round to ensure that the final clock result is a strong and reliable predictor of the final auction outcome, as follows:
 - (a) Limit bidding in the Supplementary Round to only packages on which it bid during the clock round;
 - (b) Restrict bidding in the Supplementary Round such that bidders could only bid on their final clock package augmented only by unallocated licences; and or
 - (c) Bar bidders with no final clock package from participating in the Supplementary Round.
6. Rogers Communications Partnership ("**Rogers**") on the other hand views the bidding rules in the Supplementary Round as providing an undue focus on preserving the outcome of the clock rounds at the expense of achieving what it would deem to be an efficient allocation. In particular, Rogers is concerned that the additional certainty to bidders through easy strategies to guarantee their final clock outcome risks inefficient outcomes as well as risk-free "vexatious" bidding behaviour. Therefore, Rogers wants Industry Canada to change the constraints on Supplementary Round bidding such that (a) final clock round prices do not impose an absolute upper limit to the amount that can be bid for larger packages; and (b) Supplementary Round bid packages that exceed the eligibility of the bidder in the final clock round be constrained only on the basis of revealed preference in the last round in which the bidder had sufficient eligibility to bid on the package (and not to apply additional revealed preference constraints with regards to subsequent rounds in which eligibility was dropped).⁶
7. To summarize these positions, regional carriers are concerned that the CCA design facilitates a larger bidder exiting the auction and leaving great amounts of costly unallocated spectrum that will be too expensive for the regional carriers to purchase with their Supplementary Round bids. In contrast, Rogers does not like the fact that if a large bidder were to exit the auction in exactly this manner, the remaining active bidders could be able to purchase any remaining excess supply *at the final clock round prices*. Because Industry Canada's CCA design provides greater weight to the final clock round outcome than CCA auctions in the past, Rogers' (and likely any

³ MTS Allstream Comments at paragraph 5.

⁴ Eastlink Comments at paragraph 16.

⁵ Quebecor Media Comments at paragraph 44.

⁶ Rogers Comments at paragraph 62.

nationwide carrier) would prefer the CCA designs that used a “relative cap” activity rule rather than a revealed preferences activity rule to what Industry Canada has proposed.

8. To the extent that the policy objectives are enhanced by a CCA format which accommodates national carriers, Industry Canada’s existing activity rules as applied to the Supplementary Round makes sense. Regional carriers cannot disregard the importance of complementarities between licences that may be nontrivial for nationwide carriers. If however Industry Canada wants to promote the interests of regional carriers (beyond the use of Tier 2 licences for the 700 MHz auction), then Industry Canada needs to go back and re-evaluate the entire auction structure.
9. WIND notes that were Industry Canada to alter the Supplementary Round significantly it may also have to alter the winner determination process and therefore the pricing rule that has been proposed. For example, suppose that Industry Canada were to adopt a rule that each bidders’ allocation at the end of the clock rounds could not *decrease*. That is, participants could not lose spectrum in the Supplementary Round. Under such a rule, the winner determination process would have to change, as there is potential for the winning allocation to be the one that does not maximize the sum of bids subject to the natural bidding constraints (such as spectrum caps, upfront payments and eligibility, etc.). The pricing rule would also need change. It could be the case that the opportunity cost for a winning bidder or a coalition of winning bidders would be a price that *exceeds* their bids. As such, a second price rule could not be used in all circumstances.
10. Removing the revealed preferences activity rule from the Supplementary Round may also be detrimental to regional carriers. Specifically, by allowing bidders active in the last clock round to purchase excess supply *at the final clock round prices*, the auction design provides incentive for the final bidders to reduce eligibility to submit bids *for smaller packages* either in the final clock round or in the Supplementary Round (assuming such packages are profitable) rather than make take-it-or-leave-it nationwide offers to Industry Canada. In this manner, the revealed preferences activity rule, as it applies to the Supplementary Round, makes it less likely that excess supply will exist at the end of the clock rounds.
11. To verify the above statement, consider the economic incentives of two types of bidders as the clock rounds wind down: (1) larger nationwide or super-regional bidders just on the verge of reducing eligibility and (2) regional bidders unwilling to reduce eligibility. Suppose that a larger bidder is active on a nationwide spectrum footprint, and excess demand in the clock rounds equals 1 in all regions but Southern Ontario. That is, regional bidders *collectively* have demand of 1 in all Tier 2 regions but for Southern Ontario. Suppose also that the large bidder has value for a spectrum footprint consisting *only* of Southern Ontario, but is contemplating withholding or shading that bid in an effort to win nationwide spectrum.⁷ Under Industry Canada’s proposed activity rule in the Supplementary Round the large bidder would think twice about withholding

⁷ One can obviously argue that the second price rule at least reduces the incentive for bidders to strategically reduce demand. However, as the Canadian AWS auction in 2008 illustrated, large incumbent bidders may have strategic incentive to bid in a manner that is consistent with deterring entry rather than maximizing internal profits. Consequently, it is important for Industry Canada to pay close attention to elements of the auction design that provide incentive to large bidders to accommodate entry *when it is internally profitable for them to do so*. The application of revealed preferences to the Supplementary Round provides some incentive in this direction.

entirely or shading its bid for a package of *only* Southern Ontario. The reason is that the existing activity rules would *potentially* allow competitors the opportunity to purchase any excess supply in Southern Ontario at prices in the last clock round.⁸ By including such marginal values into their “topped-up” bids for spectrum they were bidding in the last clock round, regional bidders would collectively trump the large bidder’s *nationwide* bid.

12. Without this particular rule regarding the Supplementary Round, regional bidders could still protect their positions in the Supplementary Round, but they would have to do it by “topping-up” their final clock round packages by the cost of Southern Ontario in the final clock round plus \$1. Industry Canada’s Supplementary Round rule allows bidders active on packages at the end of the clock rounds to win the excess supply *if they are willing to pay for it* as part of a bid that, so to speak, protects their positions in the final clock round. Any bidder that is contemplating an eligibility reduction late in the auction will know this, and will be less likely, as a result, to engage in strategic bidding *to create* costly excess supply in the goal of making its large bids more attractive relative to a coalition of smaller regional bids. Allowing bidders active on spectrum in the final clock round to purchase excess supply at final clock prices (assuming they purchased the initial eligibility points necessary to do it) promotes truthful bidding and deters vexatious bidding, not vice versa.
13. There are two other aspects of the revealed preferences activity rule (apart from the ability of active bidders to bid on excess supply at final clock round prices): the revealed preferences rule during the clock rounds; and revealed preference during the Supplementary Round as it applies to smaller and larger package bids not containing excess supply. WIND notes that Rogers was the primary proponent for changes to the proposed revealed preferences rule during the clock rounds. Industry Canada’s activity rule would require revealed preferences to be satisfied for all rounds in which an eligibility reduction was made. By contrast, Rogers prefers an activity rule in which revealed preferences would need to be satisfied only in the last round in which the bidder was eligible to bid on the package in question.⁹
14. Regarding the Supplementary Round, Rogers also prefers a similar loosening of the revealed preferences activity rule. In essence, what Rogers prefers in the Supplementary Round is called a “relative cap.” Under the relative cap, the bidder is unconstrained in its bid for the package that it was active on in the final clock round. Call this package X. Packages larger than X must be priced *relative to X* based on the clock prices in the relevant round in which eligibility was reduced. Packages smaller than X must (1) be priced less than X and (2) must be priced less than X by *at least* the clock prices in the final clock round.
15. In WIND’s view, from a regulatory standpoint, Industry Canada’s proposed revealed preferences activity rule may be superior to the activity rule that Rogers proposes. The reason is that the full revealed preferences activity rule requires bidders to respect relative prices *for all* eligibility reductions made over the course of the auction. For example, consider three packages $X > Y > Z$ (in

⁸ Note that the regional bidder would have needed to have *round 1* eligibility that was sufficient to bid its spectrum package in the final clock round *plus* Southern Ontario.

⁹ Rogers comments at paragraph 61.

terms of eligibility). A bidder is active on X, but then reduces eligibility and bids on Y in round 20 of the auction. The bidder then reduces eligibility and bids on Z in round 25. By round 30, however, package X (relative to Z) is less expensive than in round 20. Also, Y is less expensive (relative to Z) than was the case in round 25. At this point, Rogers would prefer that it could choose *without any additional restrictions* to bid on X. By contrast, Industry Canada’s rule would require additional checks—namely, that the relative price of Y to X must be verified for consistency. That is, if both X and Y are relatively cheaper than Z, but X is more expensive than Y relative to round 25, then the bid should be placed on Y, not X. Consequently, Industry Canada’s rule may better promote consistent bidding *throughout the entire auction*.

16. Another way of putting this is that Rogers wants the ability to update (within some constraints) *the value differences it expressed between packages during the clock rounds*. Although there could be some merit to this, there is also merit, from a regulatory and auction design standpoint, to holding bidders accountable for the eligibility reductions they make during the auction. That is, opportunities for strategic or vexatious bidding are generally *greater* the more flexibility to maneuver is granted to participants under the activity rule.¹⁰ This said, the relative cap rule that WIND described above, and that Rogers supports, has been used successfully in worldwide CCAs since roughly 2009. WIND believes that an auction consistent with Industry Canada’s objectives could be conducted using a relative cap rule so long as bidders active on spectrum in the final clock round are still allowed to purchase excess supply (if any) at the final clock round prices. This restriction would dramatically reduce the chances of strategic bidding when it can be most harmful—late in the clock rounds of the auction and in the Supplementary Round itself.

ii. Associated Entities

17. Industry Canada is proposing to change the rules from the last auction to allow “Associated Entities”¹¹ to participate separately in the 700 MHz auction and have the spectrum caps apply to them separately provided they demonstrate an intention to compete in the applicable licence area and to continue to function as competitors to a level satisfactory to Industry Canada. Bell Mobility (“**Bell**”), TELUS Communications Company (“**TELUS**”) and SaskTel generally support Industry Canada’s approach to dealing with Associated Entity participation in the upcoming auction. Reasons for support include consumer benefits through shared investment and spectrum efficiencies in common licence areas, particularly rural areas.
18. Quebecor Media also supports changes to the Associated Entity rules but makes the point that an association of two or more regional carriers can also bring about similar consumer benefits. For

¹⁰ To verify this, Industry Canada need look no further than the 2008 10-40 GHz auction in the United Kingdom. In that auction the activity rule afforded the most flexibility to bidders relative to any other activity rule in a CCA to date. As a result, bidders hoarded activity points in the clock rounds, and the Supplementary Round resulted in very significant changes in spectrum portfolios across bidders in an *inefficient* manner. Specifically, some bidders erred in bidding on smaller packages and, as a result, lost spectrum in the Supplementary Round because they were allowed to submit preferences that, at the margin, were less than (1) the reserve prices and (2) the marginal preferences they expressed in the clock rounds. Therefore, because the activity rule in this particular auction allowed for bidding that could have no reasonable economic justification, inefficiency occurred.

¹¹ As defined at paragraph 64 of the Consultation.

example, such an association may gain synergies from economies of scale related to equipment acquisition, network deployment, roaming, service marketing and/or spectrum acquisition strategy. Associated regional carriers could, if permitted to associate without triggering separate spectrum caps, “better confront the established national carriers in the marketplace or the auction arena.”¹² Moreover, it would be unfair to allow the large incumbents with overlapping service areas to have a flexibility to associate amongst themselves while denying this same flexibility to geographically non-overlapping carriers. That is, a policy that prevents regional carriers from enjoying the same scale economies that the nationwide carriers *already enjoy* and are, in some circumstances expanding upon, would do a disservice to competition in the wireless market and could, potentially, snuff out regional carriers in the long-term.

19. WIND supports the additional expansion of the Associated Entity rules as contemplated by Quebecor Media but would include associations between or regional carriers and new entrants within the scope of permitted associations for the same reasons as set out by Quebecor Media. All of the new entrants have yet to develop complete national networks and would be able to provide the same and/or greater consumer benefits to an association with regional carriers than an association of a few single-province regional carriers.
20. Rogers is concerned about the potential for co-operation by bidders with closely coordinated bidding strategies that may be used to harm a rival even without communication between bidders each round. Accordingly, the additional privileged knowledge of what another bidder is likely to do may provide that bidder a greater ability to make inferences from the information provided each round thus creating a fundamental unfairness.
21. In WIND’s view, the unique potential advantage that Bell and TELUS have in the proposed auction format of being able to share spectrum but bid separately with separate caps can be neutralized by providing additional flexibility for other potential Associated Entities to also participate separately in the auction with separate caps. Hence WIND supports the mitigation measure suggested by Rogers that “Bidders considering an arrangement that could result in them becoming Associated Entities should have the option to file it with Industry Canada for an advance ruling before the bidders conclude it. That would permit bidders interested in perhaps forming such a relationship, but who are concerned whether it would satisfy Industry Canada, to 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.”¹³
22. WIND made a similar proposal for advance rulings of potential relationships in its comments as did SaskTel. WIND continues to support the accommodation of advance ruling requests; this will encourage spectrum sharing (involving parties other than Bell and TELUS) and all of the associated benefits of increased coverage, investment and innovation.

¹² Quebecor Media comments at paragraph 65.

¹³ Rogers comments at paragraph 116 e)

iii. Information Disclosure

23. Bell is of the view that there should be more information disclosure between rounds so that bidders can “focus attention on packages that are most likely to become part of their value-maximizing combination, enabling them to focus on a small set of packages to make bidding decisions.”¹⁴ Bell argues that the main reason to limit disclosure in auctions is to prevent large bidders from engaging in implicit collusion through demand reduction (i.e., bidding less than you desire to keep prices lower). Bell also argues that there should be no concern regarding anticompetitive collusion in the 700 MHz auction because of “the CCA rules and the tight spectrum caps.”¹⁵
24. Put another way, Bell is arguing for a rule change that would allow it to better coordinate its bidding with TELUS. We disagree with Bell’s proposed rule change and the logic behind it. Bell’s proposed information disclosure rule would provide too much benefit to one set of parties i.e., Bell and TELUS who could engage in tactical bidding potentially to the detriment of other parties or to the general level of competition in the auction. If Bell and TELUS are concerned about bidding for the wrong blocks, or not timing moves between the upper and lower bands, they should operate jointly as a single bidder under a single cap. Moreover, Bell’s argument that such an information disclosure rule will allow bidders to focus attention on packages they are most likely to win is flawed, because it neglects the fact that this effect is already accomplished by the proposed CCA design. That is, package bidding, the second-price rule, and revealed preferences result in bidding driven by valuation. Bell is likely to be a large bidder in this auction. Consequently, the packages they value the most, within the cap, are the ones they will be induced to bid on and, consequently, will likely win. Industry Canada should therefore reject Bell’s proposal as it could facilitate collusion with TELUS during the auction.
25. Finally, WIND disagrees with Bell’s contention limiting information disclosure in an auction prevents large bidders from engaging in strategic demand reduction.¹⁶ Demand reduction is a strategic tactic that *might* apply to multi-unit spectrum auctions with pay-as-bid pricing. The idea behind demand reduction is to win less and pay less, because reducing demand lowers the price of what one wins. Of note, is that demand reduction can lead to inefficiency, but it also has countervailing *pro-competitive* effects in that it provides large bidders with incentive to accommodate entrants.
26. But the second-price rule in the Industry Canada’s proposed design *hugely reduces or completely eliminates any incentive to strategically reduce demand*. Therefore, this is not a concern here. Moreover, and as we explain in more detail below in our response to Bell’s desire for updated letters of credit during the auction, strategic demand reduction is not at issue among Bell, Rogers, and TELUS as their bidding in the 2008 AWS auction very clearly illustrated. Rather, a full information disclosure rule could give Bell and TELUS a vehicle with which they could attempt to stifle competition in the auction. By simultaneously viewing what each incumbent is bidding in

¹⁴ Bell Comments at paragraph 17.

¹⁵ Bell Comments at paragraph 19.

¹⁶ Bell Comments at paragraph 19.

every round, they could ensure that entrants only win the minimum allowed under the cap. Given bidding in the 2008 AWS auction and the second price rule, this is the much more likely “collusive” effect that could occur were Industry Canada to adopt Bell’s proposed information disclosure rule. Therefore, Bell’s proposal should be rejected.

27. Rogers suggests a rule that would allow auction participants to see winning bidders’ identities after the Supplementary Round (and before the Assignment Stage¹⁷).¹⁸ WIND does not think this is necessary for efficiency purposes. Given the second price rule in the Assignment Stage, and given the mandated contiguity between the A and B blocks should a single winner for those products prevail in any region, Rogers’ (or any other bidder for that matter) should not experience significant *value* changes to assignments by additional information revealed after the Supplementary Round. We should point out, however, that this amount of information dissemination is far less conducive to collusive bidding than what Bell proposes. Put simply, on a scale of information dissemination, Rogers’ proposal is not terribly far from what Industry Canada has proposed whereas Bell’s proposal is more likely to facilitate collusion during the auction.

iv. Bar on Bidding in Upper and Lower Bands

28. Under Industry Canada’s proposal, bidders would be permitted to submit bids for packages that contain blocks in both the upper and lower portions of the 700 MHz band. Rogers claims that “there is however simply no technological or commercial reason why any bidder would wish to win such a package.”¹⁹ This is because the duplex arrangement for the upper and lower paired blocks is reversed. Accordingly, in Rogers’ view, there is no need for a single carrier to obtain spectrum split across both the upper and lower portions of any band or any bids on packages that include blocks in both the upper and lower band except for inappropriate strategic reasons. Rogers further suggests that bidders not be allowed to bid for non-contiguous spectrum in the same package.
29. WIND respectfully disagrees with Rogers. Additional investments in network equipment would be required to utilize spectrum blocks in both the lower and upper 700 MHz bands. However, that investment might be cheaper than the estimated spectrum costs for bidders seeking to obtain contiguous spectrum blocks in the prime blocks. Consequently, WIND submits that banning upper and lower block bidding would be detrimental to competition. Moreover, to the extent that bidding on spectrum in the upper and lower bands is economically irrational, a bidder would have no incentive to do it in the auction. The reason is that bids in any clock round are automatically entered into the Supplementary Round. If the clock rounds end with a bidder active on spectrum in both the upper and lower bands, and that bidder did not want to win the spectrum, that bidder will have doomed itself. Because there are no withdrawals in the CCA as there were, for example, in the 2008 AWS auction, the scope for vexatious bidding on this point is negligible.

¹⁷ The Assignment Stage, as defined in the Consultation, is where winning bidders have the opportunity to make additional bids to express their preferences for particular frequency assignments within the generic licences that they have won.

¹⁸ Rogers Comments at paragraph 81.

¹⁹ Rogers Comments at paragraph 18.

v. Second-Price Rule

30. Data & Audio-Visual Enterprises Wireless Inc. (doing business as Mobilicity (“**Mobilicity**”)) expressed reservations over the second-price rule, stating that bidders will have incentive to submit losing bids solely for the purpose of setting prices for competitors.²⁰ Moreover, Mobilicity finds that the second-price rule can result in different prices being paid by bidders that win similar spectrum allotments.²¹ Therefore, Mobilicity suggests eliminating the Supplementary Round, stating this would solve its concerns.²²
31. WIND notes that, Mobilicity’s example as to how a large bidder would submit “losing” bids on other blocks to affect price is potentially incorrect. The first issue with Mobilicity’s example is that bidders do not “win” spectrum in the clock rounds. This may seem overly technical on first blush, but it is an important distinction. The second issue is that Mobilicity’s example ignores the effect of revealed preferences in the Supplementary Round. This rule ensures that *marginal* bids²³ (that is, price differences between package bids) of the type that Mobilicity contemplates are bounded by the final clock prices.²⁴ But then one must ask: how did the clock prices get to the levels they reached in the final clock round? The answer is that a *losing* bidder or *coalition of losing bidders* bid up those clock prices. In practical terms, this means that the scope of a bidder to submit *losing yet price setting bids in the Supplementary Round* is limited to the bid increments in the final clock round. To the extent Industry Canada is concerned with this, it can simply lower the increments as the clock rounds wind down—something it might be inclined to do anyway.
32. A second problem with Mobilicity’s criticism of the second-price rule stems from its conclusion that the rule is flawed because prices can vary across bidders winning roughly similar spectrum packages. We first note that this is a characteristic of virtually any spectrum auction that uses geographic licensing. For example, in the 2008 AWS auction, TELUS won the F block licences in Toronto and Montréal whereas Rogers won the A block. Not to bring up bad memories for TELUS, but it paid over \$120 million more than Rogers for what amounted to (essentially) the exact same spectrum in these two cities. Therefore, different parties paying different prices for similar spectrum is nothing specific to either the CCA or the second-price rule. Mobilicity’s analysis also glosses over the complexities of the Swiss auction. That auction included the ability of incumbents to release spectrum into the auction, bid for spectrum vacated by competitors, and also bid for unused spectrum. This aspect of the auction—something that is not a part of Industry Canada’s design—likely contributed to the price disparities across bidders.
33. Rogers also expresses a concern over the second-price rule during the Supplementary Round. To paraphrase, Rogers states that *in the event there is no excess supply at the end of the clock rounds*,

²⁰ Mobilicity Comments at paragraph 15.

²¹ Mobilicity Comments at paragraph 16.

²² Mobilicity Comments at paragraph 17.

²³ By marginal bids, we refer to the *differences* between the bid in the final clock round and Supplementary Bids on other packages. We also note that under the current rules, additional constraints exist on *larger* packages.

²⁴ Packages smaller than the final clock package must have marginal preferences expressed that are at least as large as the final clock prices. Larger packages cannot have marginal preferences greater than those dictated by the final clock prices, and likely must be less due to revealed preferences.

subject to trivial top-up bids the allocations will not change in the Supplementary Round. Given this, what is the purpose of the Supplementary Round?²⁵ Rogers recommends that the Supplementary Round be eliminated in this event. WIND's interpretation is that the Supplementary Round would allow full opportunity costs to be expressed for the *last bidders to reduce eligibility in the auction*. It would seem contrary to public policy goals for a scenario to occur where Vickrey Prices were deemed to be "in the core," but those prices were less than the true values of a losing bidder or a losing coalition. Hence, in the event that there is zero excess supply, the Supplementary Round does have economic purpose. Moreover, WIND's belief, as we explained above, is that the revealed preferences rule effectively restricts the price effect of "vexatious" bidding to, at maximum, the bid increments in the final clock round.²⁶

34. Having said the above, given the concern that multiple parties have expressed over the Supplementary Round, WIND could perceive of an alternative that (1) would not substantially affect pricing, (2) would allay Rogers' and potentially other parties' concerns, and (3) would not affect efficiency. The alternative would take place *only in the event that there were no excess supply after the final clock round*. It would consist of the following: any bidder in the auction would be restricted to submitting Supplementary Bids on (i) its final clock round package *and* (ii) any packages with eligibility points exceeding those of the final clock package, subject to revealed preferences.
35. Note that bidders active on no spectrum at the end of the clock rounds would face no changes in the supplementary bids they could submit relative to the current rule. Therefore, if these bidders are the "price setters" for winning bidders, they will have the chance to enter their full values for their top 500 packages. Bidders active on spectrum in the final clock round, but who reduced eligibility in that final round (and therefore triggered the end of the clock rounds) would be able to express their full marginal values on the package(s) they dropped. Bidders active on spectrum that did not reduce eligibility in the final clock round would be able to top up bids for any package with more eligibility points than what they bid in the final clock round, subject to revealed preferences.²⁷ This could, however, reduce or eliminate the concern that seems to exist among some interested parties—namely, that a winning bidder could submit package bids on *smaller or equally sized packages* that (i) stood no chance of winning and (ii) might only increase prices paid by others. But again, WIND notes its belief that revealed preferences in the Supplementary Round mitigates the ability of bidders to engage in chicanery on this point.

²⁵ Rogers Comments at paragraph 66-7.

²⁶ We do note that prices paid could possibly increase due to a Supplementary Bid submitted on a *larger* package than the one a bidder was active on the final clock round. This cannot conceivably be deemed a vexatious bid. The reason is that the bidder would have needed to reduce eligibility during the clock rounds with perfect foresight of the final clock round outcome. In an anonymous CCA, this is a highly dubious prospect at best and most likely impossible.

²⁷ Note that, as WIND has written this, if a bidder used revealed preferences to bid on a package exceeding its eligibility in the final clock round, that bidder would *not* be able to bid on packages of size smaller than its *last clock package*. This is consistent with revealed preferences in the last clock round.

vi. Bid Increments

36. Rogers stated that it had some reservations about linking excess demand to the bid increment. It believes that doing so could increase the chances of excess supply and therefore unsold lots.²⁸ Rogers recommends that bid increments should not be too large, stating that it prefers increments in the 5 to 10 percent range,²⁹ and it also advocates an absolute dollar cap on increments at \$10 million.³⁰ Rogers also requested that Industry Canada provide the formula that it intends to use during the auction to determine bid increments in the clock rounds.³¹
37. On this point, Industry Canada might consider the 300+ round AWS auction of 2008. This auction took, essentially, the entire summer to complete. Although there were many reasons why that auction required so much time, Industry Canada should consider the lengthening effect that small increments could have on the auction. Moreover, the main reason to have small increments in a multi-round auction is to reduce the chance of inefficiency that could occur if (1) the increment on a licence exceeds the difference between values of the highest-value and second-highest-value bidders and (2) the auction does not contain a mechanism to allow the high value bidder to submit a “drop out” price as it exits the auction. This is not a concern in Industry Canada’s proposed auction because the Supplementary Round serves this exact purpose—namely, it allows bidders a chance “to top-up” bids in the event increments exceed value differences. Consequently, Industry Canada should consider this in determining whether smaller increments would be more or less consistent with its stated goals in conducting this auction.
38. From a regulatory standpoint, it is also unclear whether smaller increments would decrease the chance of unsold lots. It is true that if extremely large increments exist the chance of excess supply at the end of the clock rounds would increase, but this does not translate into unsold lots. All bidders active on spectrum packages in the second-to-last clock rounds would be able to adjust bids in the Supplementary Round (and would have economic incentive to do so) such that the chances of unsold lots would probably be small.
39. Finally, on the issue of increment size, Industry Canada might consider two practical points. First, the U.S. Federal Communications Commission has routinely used increments of up to 20 percent in its auctions, and those auctions often take hundreds of rounds and multiple months to complete. Consequently, increments capped at the minimum of 10 percent and \$10 million could extend the auction to unreasonable length. Second, participation costs are often large in a high-stakes spectrum auction. A good portion of these participation costs stems from setting aside personnel for a bid team and hiring consultants to advise the bid team during the auction. The longer is the auction, the higher are participation costs, and these high costs are born disproportionately by smaller bidders. That is, choosing small increments and lengthening the auction could potentially harm competition by increasing participation costs.

²⁸ Rogers Comments at paragraph 84.

²⁹ Rogers Comments at paragraph 86.

³⁰ Rogers Comments at paragraph 87.

³¹ Rogers Comments at paragraph 85.

40. Lastly, WIND has no objections to Rogers' request for Industry Canada to publish its increment rule that it intends to use during the auction. The U.S. Federal Communications Commission has done this for roughly 15 years, and it is often done by other agencies too. Should Industry Canada publish such a rule, it might also consider whether allow itself the ability to deviate from this rule during the auction. Spectrum auctions in Mexico have proven that bidders are at times able to extend auctions when provided with specific *and unchanging* rules regarding bid increments or transitions to new activity stages. Industry Canada might choose to review some of these auctions in determining how best to manage bid increments in its auction.

vii. Letters of Credit

41. Bell claims that eligibility points were parked during the last AWS spectrum auction because bidders did not have to guarantee their bids and as a result were able to spend money they did not have and had no meaningful intention of actually spending. As a result, Bell is recommending that over the course of the auction, 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.³²
42. WIND disagrees with Bell's contention that letters of credit should be topped up during the auction for several reasons. First, there is absolutely no evidence that any of the winning bidders in the last auction defaulted on any of the sums bid in the auction. Rather, all final bidders clearly made good on their bids and failure would have resulted in substantial penalties. Second, the parking of eligibility points is a strategy used in the Simultaneous Multi-Round Auction (SMRA) such as was employed in the 2008 AWS auction. It is not a likely strategy in a CCA as proposed by Industry Canada for use in the 700 MHz process. One reason is that parking of eligibility points is useful to mitigate exposure risk, which can be significant, in a SMRA. By bidding on licences that large bidders will always bid back (like Toronto and Montreal) smaller bidders can discover prices on licences they must have before bidding on licences that are only useful to them as complements. Because package bidding in the CCA reduces or eliminates exposure risk, parking is not an issue in the CCA format.³³ Indeed, one of the motivations behind the CCA design was to eliminate the parking strategy that had become pervasive in the SMRAs. Third, WIND notes that given the second-price rule, there is no direct linkage to clock prices and what

³² Bell Comments at paragraph 23.

³³ WIND also notes that parking was successful in the 2008 AWS auction two major reasons. First, the auction included no significant withdrawal penalties. In particular, if bids were withdrawn, no penalty was paid so long as the final sale price of the licence was at least as large as the withdrawal price. The CCA that Industry Canada has proposed does not allow withdrawals, and bids in the clock rounds are automatically entered into the Supplementary round. Consequently, parking strategies can potentially be *very* costly in the proposed CCA, as any park could directly compete with a truthful bid. Second, parking was successful in the 2008 AWS auction because Bell, TELUS, and Rogers allowed it to be successful. There were 177 "open" licences in the 1.7/2.1 GHz band in the AWS auction. (These open licences were in the A, E, and F block and represented AWS licences that all bidders were eligible to bid on). Of those 177 licences, a mere 7 were won by entrants. And those 7 licences were in secondary and tertiary licence areas, such as Eastern Townships, Regina, and Winnipeg. Because the incumbents never backed down in the AWS auction they sent the clear message to entrants that they could park without cost on any licence. Simply put, small bidders should not be forced to pay now for incumbents' myopic strategies in an auction held in 2008.

bidders will be asked to pay. Therefore, Bell’s demand on this point is without merit. Industry Canada should reject it as a measure to try to impose higher participation costs on smaller bidders—an effort that, if successful could reduce competition in the auction.

viii. Spectrum Aggregation Limits

43. Rogers claims Bell and TELUS as associated bidders with an intention to share spectrum can each acquire a prime paired block. They can later combine these two prime blocks, which gives them access to the upper band in the same way that new entrants can bid for two prime blocks. Rogers argues that because it does not have similar flexibility, it is uniquely disadvantaged by the limited options available to it in respect to the packages on which it can bid. Rogers therefore suggests that large service providers be permitted to bid for up to two prime blocks in the upper band but only one prime block in the lower band. It argues that this would afford it the same buying power as Bell and TELUS, while ensuring that a single prime block would still be available to entrants.³⁴
44. WIND notes that Industry Canada has already decided the issue of spectrum caps in SMSE-002-12. Decision B3-2 makes it clear that a spectrum cap of one paired spectrum block from within blocks B, C, C1 and C2 is applicable to all large wireless service providers. This ship has sailed and Rogers’ suggestion is out of scope. If Rogers wants two adjacent blocks of 700 MHz spectrum, there are a number of different package bids that it could submit under the current auction design to accomplish this.
45. Moreover, to the extent that Rogers feels singled out vis-à-vis Bell/TELUS, we respectfully submit that Rogers could easily enter into a sharing arrangement with WIND, Quebecor Media, Shaw Communications Inc. (“**Shaw**”), etc., and Rogers’ concern on this point would be eliminated. Bell and TELUS do not have a monopoly on sharing arrangements. Consequently, Rogers is not uniquely disadvantaged by Industry Canada’s proposed cap rules and its auction design.

ix. Items that Require Clarification

46. WIND believes there are a handful of items on which Industry Canada should provide clarification over and above what was provided in its Consultation on licensing framework. First, Industry Canada should state how it intends to apply revealed preferences in the Supplementary Round to any packages of *equal* eligibility points to the last clock package. WIND believes they should be treated as packages *larger* than the last clock package and should therefore satisfy revealed preferences throughout every clock round of the auction. This could prevent bidders from engaging in haphazard switching between the upper and lower prime blocks during the clock rounds. Put differently, it would allow for better price discovery of any value differences between the lower and upper prime blocks during the clock rounds.

³⁴ Rogers Comments at paragraph E8

47. Second, it is WIND's understanding that at no point during the auction would a bidder be able to bid on a spectrum package that violates the spectrum caps. Industry Canada made this explicit in its Consultation, and it should also make it explicit in the final auction rules.
48. Third, it was *not* apparent to WIND that in the Supplementary Round bidders would be unable to bid on packages that exceed their eligibility governed by their upfront payments regardless of whether excess supply exists. WIND believes that this clarification is necessary. It means that ties in bidding for excess supply would be limited only to bidders that had the eligibility points to bid for it during the auction. For example, a bidder that only bid on the Yukon during the clock rounds *and never purchased the eligibility points needed to bid on anything larger than the Yukon* should not be able to bid on Southern Ontario in the event it were vacated in the final clock round. Given the concern expressed over the purchase of excess supply in the Supplementary Round, it must be made explicit.