June 25, 2012

Manager, Spectrum Auctions
Spectrum Management Operations Branch
Industry Canada
300 Slater Street
Ottawa, Ontario
K1A 0C8

Dear Sir/Madam:

RE: Notice No. DGSO-002-12- Consultation on a Licensing Framework for Mobile Broadband Services (MBS) – 700 MHz Band

With respect to the above-noted Notice, we have attached the written comments of the Public Interest Advocacy Centre (PIAC).

Thank you.

Yours truly,

Michael Janigan
Executive Director/
General Counsel
Submission of the Public Interest Advocacy Centre to Industry Canada with respect to the Proposed Combinatorial Clock Auction Format and Other Issues

1. The Public Interest Advocacy Centre (PIAC) is a non-profit organization that has provided legal representation and research on behalf of ordinary and vulnerable consumers in issues involving the delivery of important public services, such as telecommunications, for over 35 years. PIAC is pleased to provide an additional submission to Industry Canada with respect to the 700-MHz spectrum auction format.

2. PIAC welcomes Industry Canada's initiative to introduce the Combinatorial Clock Auction (the CCA) format in the upcoming spectrum auction as it is by far the most appropriate format which should lead to an efficient allocation of spectrum licenses that benefits competition and consumers.

The simultaneous multiple-round ascending auction (SMRA) format contains notable disadvantages that need to be eliminated

3. Experience of using the SMRA auction has indicated that such an auction may be time consuming. Furthermore, large bidders may “understate demand early on” (demand reduction).¹ “Tic tac collusion” may also be present where bidders may collude by “submitting high bids”.² Moreover, in order to pretend that he follows an activity rule, a bidder may use parking strategies. Particularly, a bidder may maintain its eligibility “by parking its eligibility in particular spots that the bidder is not interested in and then move to its true interest later”.³

4. However, the principal disadvantage of the SMRA is that bidders are unable to “place a bid on a pair of two contiguous spectrum blocks”.⁴ Specifically, the bidder will end up with the possibility of winning only one of the two spectrum blocks that he bid on. In other words, SMRA is accompanied by the exposure problem.

Exposure problem may result in "conservative bidding, lower revenue, and inefficient allocations".  

The CCA addresses disadvantages of the SMRA

5. The most important advantage of the CCA format is that it gives bidders the opportunity to establish "precisely" packages of spectrum blocks that they would like to bid on. For instance, a bidder that is bidding on a package that contains two blocks will be either awarded both of those spectrum blocks or none of them. In other words, in this type of auction, exposure problem is "completely eliminated".  

6. The CCA is also technology-neutral auction. For instance, this auction can accommodate both paired and unpaired technologies such as LTE and WiMAX.  

7. To promote price discovery, the auction starts with a clock stage. To ensure truthful bidding, the auction makes use of Vickrey-nearest-core pricing, which minimizes bidders' "total payments subject to competitive constraints". To ensure truthful bidding an activity rule referred to as revealed preference is used. This rule encourages bidders to bid in the "straightforward manner of selecting the most profitable package in each round". Tacit collusion is eliminated thanks to anonymous bidding. The use of generic licences facilitates substitution and thus, introduces flexibility in choosing preferred lots for bidders. The use of generic licences also reduces the length of time of the auction.

Disadvantages of the CCA should not detract from the efficacy of its implementation

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8. Notable disadvantages of the CCA include the difficulty in understanding the complex rules that comprise the format, which “may undermine participation and revenue”.\(^{10}\) Furthermore, the auction “requires detailed market understanding” to evaluate which packages are most beneficial. However, these disadvantages are fixable through education and research.

**Specific answers to Industry Canada's inquiries with respect to the proposed auction format for the 700-MHz spectrum auction**

9. The use of **generic licenses** is productive when licences can be effectively substituted. Industry Canada further recognized the importance of contiguous spectrum by emphasizing that if a bidder won the A licence and one of the B and C licences, the bidder will be automatically assigned the A and B licences. The contiguity principle will be especially beneficial for new entrants such as WIND, Public Mobile and Mobilicity that would wish to have a wider and continuous coverage.

**Industry Canada's proposed combined eligibility point and revealed preference activity rule in the clock rounds, and the revealed preference limit in the supplementary round**

10. These rules are welcome as they emphasize truthful bidding; they have also been endorsed by economists that have tested the efficacy of the CCA in their laboratory settings.\(^{11}\) The rules preclude exercise of “snake in the grass” and “parking” dilemmas which may subvert the intended result.

**Industry Canada's proposed use of a second-price rule**

11. Endorsed by economists and by the regulator in Australia, “Vickrey-Nearest Minimum Revenue Core” pricing is used to achieve a competitive price and ensure truthful bidding. The first-price rule may encourage the bidder to shave bid to avoid winner’s curse. A second-price rule encourages bidders to bid true value of items. Industry

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Canada is correct to point out that “bidders, knowing that they will only be required to pay the minimum amount necessary to win their package, will have the incentive to bid truthfully during the entire auction”. Furthermore, “Vickrey-Nearest” principle would also ensure that prices paid by winning bidders are sufficiently competitive.

**Industry Canada’s Proposed Information to be disclosed during, and post-auction**

12. Industry Canada’s proposal of using anonymous bids would prevent risks of potential anti-competitive behavior such as collusion. Disclosure requirements - coupled with price discovery process during clock rounds - that focus solely on:
   - what has been achieved in previous rounds;
   - prices of each product in the subsequent rounds; and
   - what bidders won and their eligibility to bid

are sufficient for the auction to run effectively.

13. In **conclusion**, Industry Canada’s proposals are in accordance with core principles of combinatorial clock auctions. As well, Industry Canada appears to have enhanced activity rules by taking into account the analyses of economists on the efficacy of a hybrid activity rule in conjunction with revealed preference activity rule. In PIAC’s view, the Industry Canada’s proposal should promote competition, transparency and preclude anti-competitive behaviour and thus, benefit consumers more than the SMRA format. The CCA would be a responsible replacement of the SMRA, in particular by eliminating the exposure risk.

**Other Issues**

**Associated Entities**

14. Industry Canada proposes to define associated entities as:

   players that enter into any partnerships, joint ventures, agreements to merge, consortia or any arrangements, agreements or understandings of any kind, either explicit or implicit, relating to the acquisition or use of any spectrum in the 700 MHz band.\(^\text{12}\)

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Industry Canada also requires bidders to disclose in writing names of affiliated and associated entities. Moreover, Industry Canada now proposes that associated entities could be allowed to participate in the spectrum auction separately if that would not “negatively impact the integrity of the auction process”.  

15. The proposed definition of associated entities does not definitively answer the question whether Bell Canada and TELUS fall within the definition. PIAC submits that the act of sharing HSPA wireless network by both players supports the argument that they should be declared associated entities within the meaning of the proposed definition.

16. If Bell Canada and TELUS are not found to be associated entities or are allowed to bid separately, PIAC argues that there should still be restrictions on these bidders because their bidding separately might “negatively impact the integrity of the auction process”. Specifically, the Big Two will have an overwhelming strategic advantage over new entrants in the auction. PIAC agrees with the following comments of the CEO of Wind Mobile on the proposed spectrum auction rules regarding associated entities:

“If Bell and TELUS are two entities that contiguous spectrum situation really then gives them even more of a structural advantage in the auction because they can count on having 10 MHz paired contiguous across the country.”  

17. The considerable advantages possessed by Bell Canada and TELUS as two separate bidders in the spectrum auction might produce a result on the ground that reinforces existing dominance rather than fulfill one of the core objectives of the upcoming auction:

“sustained competition in the wireless telecommunications services market so that consumers and businesses benefit from competitive pricing and choice in service offerings”.  


14 Hoffman, Perry, 700 MHz Auction: “Wind’s Lacavera happy with new auction format, but are Bell and Telus one bidder?” April 30, 2012, Cartt.ca

As a consequence, stifling of competition in favour of granting separate statuses to the affiliate entities would not be in the public interest.

Final Remarks

18. As the foregoing indicates, PIAC is in support of the initiative to introduce the CCA in the upcoming auction. PIAC thinks it is the most appropriate auction format to date for the purposes of promoting competition and ultimately, enabling consumers to have more choice.

19. PIAC also recommends that Industry Canada find Bell Canada and TELUS to be associated entities due to the fact of their sharing the HSPA wireless network. Such a finding should also prohibit them from bidding separately so that current patterns of dominance may be allowed to be challenged and new entrants may obtain access to wider coverage.

Dated June 25 2012