

**CANADA GAZETTE NOTICE NO. DGTP-002-07**

***Consultation on a Framework to Auction Spectrum in the 2 GHz Range  
including Advanced Wireless Services***

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**REPLY COMMENTS**

**OF**

**THE COMMISSIONER OF COMPETITION**

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## **1.0 INTRODUCTION**

1. This submission presents the reply comments of the Commissioner of Competition (the Competition Bureau or the Bureau) to initial comments made by interested parties to Spectrum Management and Telecommunications (the Department) in its *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, Notice No. DGTP-002-07, February 2007 (the Consultation Paper).

2. Section 2 of this submission responds to views expressed in expert reports submitted by Bell Canada (Bell) and TELUS Communications Company (TELUS) as to whether current market conditions necessitate the imposition of measures to enable market entry in the upcoming auction. Section 3 focuses on comments by interested parties in relation to the assessment of market power in wireless markets. Section 4 responds to comments on mandated roaming.

## **2.0 ENABLING MARKET ENTRY**

3. Dr. McFetridge's expert report for TELUS expresses the view that auction intervention is not necessary since i) an entrant willing to pay the competitive auction price will only receive a windfall if restrictive measures depress the price of spectrum, and ii) entry by any firm unwilling to pay the competitive auction price will be inefficient. Dr. McFetridge states that "entry that is, in fact, induced by the availability of below-cost spectrum cannot, virtually by definition, provide the robust, efficient competition that would make the industry more 'vibrant'."<sup>1</sup> Indeed, this would be the case in a purely open auction context. However, in the present spectrum context, there are constraints that may distort any first-best result: restrictions on foreign entrants, as Drs. Crandall and Ingraham point out in

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<sup>1</sup> McFetridge, Donald G., "Competition in the Canadian Mobile Wireless Telecommunications Industry," May 24, 2007 at p. 40.

their expert report for TELUS,<sup>2</sup> and the potential pre-existence of market power, as the Department's Competition Principles recognize.

4. Dr. McFetridge positions the latter issue as "whether the state of competition in the mobile wireless industry is such that incumbents would likely find it feasible and profitable to raise potential rivals' costs either by bidding up the price of spectrum beyond its competition scarcity value or by setting facilities' access prices at supra-competitive levels."<sup>3</sup> Dr. McFetridge's subsequent assessment of the state of competition finds it sufficient to prevent this scenario; the assessment of market power by Charles River Associates (CRA) for Bell comes to a similar conclusion.<sup>4</sup> The Bureau notes, however, that neither report focuses heavily on the incentives of incumbent firms to bid up spectrum to prevent entry and maintain the current level of competition. Where any level of market power exists, incumbent firms will always have the incentive to bid to prevent entry since they value spectrum differently from potential entrants.

5. A new entrant has the incentive to maximize profits based on the licence(s) it bids for; an incumbent will seek to maximize profits from both existing and new licences. When supra-competitive prices, and thus existing profits, are threatened by potential entry, an incumbent will pay more for spectrum to protect those profits. In other words, even if the entrant places greater economic value on spectrum, based on future usage, than an incumbent, the incumbent will have the incentive to prevent entry by bidding their economic value for the spectrum plus a premium representing their potential loss of profit. Where this premium is greater than the difference in spectrum valuation between entrants and incumbents, incumbents will win new licences.

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<sup>2</sup> Crandall, Robert W. and Allan T. Ingraham, "The Adverse Economic Effects of Spectrum Set-Asides," May 24, 2007.

<sup>3</sup> *Supra* 1 at p. 10.

<sup>4</sup> Sanderson, Margaret and Andrew Tepperman, "An Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada," May 25, 2007.

6. Where market power exists, this premium will bias an open auction toward those with market shares to protect. However, even though incumbents may place greater value on spectrum licences than entrants as a result, this additional valuation does not represent economic value added, but instead the value to incumbents of preventing competition. If market power is not significant, this effect may be small or even negligible, but it will always represent an imbalance between entrants and incumbents.

7. Should the Department determine, based on its assessment of the state of competition, that there is sufficient market power to raise concerns that an imbalance exists, the Department will then need to examine factors that may exacerbate this imbalance. Such factors would include, in particular, whether incumbents are large relative to potential entrants; whether fixed costs of building facilities are still extremely high relative to the price of spectrum; and whether incumbents have access to significantly more financial resources than potential entrants. All of these factors make incumbents more likely to win spectrum licences than entrants in an open auction. At the same time, these factors may also speak to the ineffectiveness of potential entry, suggesting that any set-aside may still result in inefficient spectrum allocation.

8. This discussion reinforces the point, as Drs. Crandall and Ingraham note, that set-asides and foreign ownership restrictions are tied; without lifting these restrictions, entrants may be too small to be effective, and any set-aside may fail. Conversely, in an open auction with potential foreign entry, set-asides may help large, efficient entrants and attract potentially national operators. At the same time, foreign entrants may already be far larger than any incumbents and in no need of a spectrum set-aside. In either case, it is the removal of foreign ownership restrictions, not auction intervention, that may be the more powerful instrument of competition.

9. Given the present restrictions, however, intervention may still be appropriate if domestic entrants can provide effective competition, given the incentives of incumbents as described above. Drs. Tan and Krause illustrate the factors underlying these incentives in their report for Bell when they note that “the ability for existing firms to profitably deter entry will depend on the relationship between three factors: (i) profits of existing firms with and without new entry; (ii) the profits of the new entrant; and (iii) the fixed costs of entry.”<sup>5</sup> They also note that too much entry can be costly; namely, it may be the case that a new entrant will not improve competition (through higher quality of service or lower prices) to a degree sufficient to justify the duplication of fixed cost in establishing a network. In other words, if the costs of entry, especially subsidized entry, outweigh the potential benefits of competition, there is a net loss of social welfare because entry is excessive. This can hold even if entrants are as efficient as incumbents, if the benefits of additional competition are small. Again, however, this potential efficiency loss may be small or even non-existent, depending upon the Department’s assessment of the prevailing state of competition.

10. Finally, Dr. McFetridge argues that if there are competition problems, the *Competition Act* is a more suitable remedy than any *ex ante* auction policy. This may in fact be the case. However, should the Department assess the costs of attempting to fix market power concerns *ex post* as greater than the potential costs of enabling entry *ex ante* (as discussed at greater length in the Bureau’s May 25, 2007 Comments), it may favour auction intervention. Certainly there is a high factual burden to competition law intervention, suggesting that any *ex post* remedy may occur only under conditions beyond the sufficiency of the Department’s. In any event, the Bureau reiterates that the Department should have a clear, stated objective when assessing the costs and benefits of intervention; if, for example, the Department places greater importance on encouraging competition, enabling entry *ex ante* may be more appropriate.

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<sup>5</sup> Tan, Guofu and David Krause, “Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range,” May 25, 2007 at p. 17.

### 3.0 ASSESSING MARKET POWER

11. The majority of comments from parties in the first round of this Consultation do not directly apply the Department's Competition Principles, and instead take a holistic view of wireless competition in support of, or opposition to, intervention in the upcoming AWS auction. Bell, however, has submitted an expert report from CRA that uses a competition law framework, as the Bureau would, to assess whether there is significant market power in the wireless industry. Although the Bureau does not have all the necessary data to properly assess market power in this instance, the Bureau will, in the interest of aiding the Department's ultimate assessment, comment on the approaches taken by various parties.

12. The CRA report begins by defining relevant product and geographic markets. CRA declares mass market wireless service, including voice and data capability, to be the relevant product market, given the complementarity of the services, the technological and consumer demand factors that bundle them together, and the fact that their mobility and corresponding prices make them a separate market from wireline service. As the Bureau states in its May 25, 2007 Comments, to constitute a relevant product market, the characteristics of wireless service must sufficiently differentiate it from other technologies (e.g. wireline) such that sufficient consumers would not switch to those technologies in the face of a small but significant non-transitory increase in price (SSNIP) to render that increase unprofitable. Short of having price and customer switching data to generate estimates for own- and cross-price elasticities of wireless services, the Department may need to rely on a more qualitative approach to market definition, as CRA does. The Bureau notes that most other parties implicitly consider the product market to be all 2G and 3G wireless services, including voice and data.

13. CRA defines the relevant geographic market to be national, given the presence of the three national operators in most markets, combined with some regional players. The Department, in assessing geographic markets, will have to consider their effect on a potential set-aside or spectrum aggregation limit – will these measures be used nationally for different spectrum blocks, or only in various regions where there may be market power concerns? In this respect, the Bureau's May 25, 2007 Comments recommended looking at regions covered by each licence; aggregation on a provincial or national basis would be appropriate where consumers have the same competitive alternatives. At the same time, the existence of regional pricing plans or regional capacity constraints may suggest divergences in market power.

14. CRA and Rogers Communications (Rogers) both present market shares based on revenues that show all three national operators at relatively similar levels, between 30% and 40%. Rogers also provides changes in market shares from 2001 to 2006, suggesting a high degree of rivalry in the market. Neither touches significantly on the issue of capacity, other than CRA's mention that since customers can be added quickly where facilities are in place, it may be appropriate to assign symmetric shares to each operator (i.e. 33% in most cases). However, capacity is a crucial issue in this consultation and the Bureau urges the Department to consider it in more depth, based on spectrum holdings within a given region and usage thereof. Where a firm has less spectrum than its rivals, or is using that spectrum far more heavily because of more customers or higher-bandwidth services, that firm may have less ability to add new subscribers, in which case symmetric market shares would be inappropriate. The Bureau notes that MTS Allstream discusses spectrum capacity in this regard, but looks only at spectrum holdings and not at specific usage levels.

15. Many parties agree that barriers to entry, most notably the fixed costs of establishing network infrastructure, are very high. This fact has been used to cut both ways, by those arguing that a set-aside is necessary to lower total costs,

and by those arguing that even with a set-aside, these costs are too high for most potential entrants to offer effective competition. While the Bureau concurs that costs of entry in the wireless market are high, whether they are “too” high will depend upon the business plans of potential entrants and their access to capital, which the Department can assess when determining the likelihood of effective entry.

16. Finally, the Department’s third criterion in Principle 1 for restricting auction participation is that the potential anti-competitive effects of incumbents acquiring more licences are not outweighed by the economies of scope arising from the integration of that spectrum into their existing networks. In this regard, the incumbent operators have submitted comments outlining (i) how they intend to offer a wide variety of new services with AWS spectrum, and (ii) how hoarding spectrum is not a rational strategy.

17. With respect to the second point, the Bureau discusses above the economic incentives incumbent firms have relative to entrants in spectrum auctions. Bell and TELUS claim that spectrum hoarding is not rational since they are accountable to public shareholders. This argument is not necessarily dispositive in light of the potential economic incentives.

#### **4.0 MANDATED ROAMING**

18. There is a consensus that roaming agreements are often efficient and can provide significant benefits. The question is whether it is appropriate to mandate roaming, or whether competitive market forces are sufficient to assure the capture of these economic efficiencies through voluntarily negotiated agreements.

19. Parties take opposing views on whether reliance on voluntary agreements is currently working well. Bell and TELUS argue that it is working well, the latter

citing agreements negotiated by MTS Allstream and Videotron as examples. MTS Allstream and Videotron argue that it has not worked well, and provide a "second-hand" example – namely, the experience of Microcell. Curiously, both MTS Allstream and Videotron are silent on whether voluntary negotiated agreements with the incumbents have worked well for them.

20. An evaluation of how well, or poorly, reliance on voluntary agreements has functioned should be a key focus of the Department when assessing whether there is an inefficiency that mandated roaming could potentially mitigate. The Bureau expects that the second round comments will provide more specific and detailed information on the question of how well, or poorly, reliance on voluntary agreements has worked in the cases of MTS Allstream and Videotron.

21. If an assessment of this information indicates that there is a problem that mandated roaming could mitigate, the next logical question is whether conditions of licence providing for such is the appropriate remedy. One advantage of such an approach is that bidders would be informed of the "rules of the game" when they bid. For example, if a mandated roaming condition is specified up front, the incentive for regional entrants to compete hard in the auction is increased.

22. Before concluding that mandated roaming conditions of licence are appropriate, however, the Department should evaluate the potential for mandated roaming to distort investment decisions. As noted in Bureau's May 25, 2007 Comments, the magnitude of such effects depends importantly on the pricing principles adopted. Any mandated roaming condition pursued by the Department needs to address efficient pricing; if the price of mandated roaming is set too low, for example, it may undermine the incentives to invest and, in so doing, impose significant economic costs.

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