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

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COMMENTS

OF

THE COMMISSIONER OF COMPETITION

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1.0 INTRODUCTION

1. This submission presents the preliminary views of the Commissioner of Competition (the Competition Bureau or the Bureau) on the issues raised by the 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. The Commissioner of Competition is responsible for the administration and enforcement of the *Competition Act*. The statutory purpose of the *Competition Act* is to maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy; to expand opportunities for Canadian participation in world markets while recognizing the role of foreign competition in Canada; to ensure that small and medium-sized enterprises have an equitable opportunity to participate in the Canadian economy; and to provide consumers with competitive prices and product choices.¹

3. The Bureau's participation in this proceeding is pursuant to sub-section 125(1) of the *Competition Act*, which empowers the Commissioner to make representations to and call evidence in respect of competition before any federal board, commission, tribunal, or organization charged with a regulatory function.

4. In its Consultation Paper, the Department invites parties to comment on several issues related to the upcoming auction of Advanced Wireless Services (AWS) spectrum, which the Department has designated for flexible use of fixed and mobile wireless services such as cellular telephony, data, multimedia and IP-based applications, and broadband access, including 3G cellular and other technologies. Specifically, the Department asks whether measures are

¹ RSC 1985, c. C-34, as amended, sections 1.1 and 7(1).

necessary to enable entry and ensure a competitive post-auction marketplace. The Consultation Paper also invites comments on whether roaming services should be mandated and whether the technical and licensing conditions proposed for the AWS band are appropriate.

5. The Consultation Paper notes that the Canadian wireless telephony industry has consolidated into three national incumbent carriers that have purchased almost all of the PCS spectrum available from the 2001 auction process and have acquired significant amounts of fixed wireless spectrum in subsequent auctions. Meanwhile, the wireless market continues to grow; according to recent data from Statistics Canada, the number of wireless subscribers increased 8.4% from 2005 to 2006 to reach over 18 million, while wireless operator revenues and profits increased 16.5% and 41.3% respectively over the same period.² The Consultation Paper also considers that there are significant barriers to market entry in developing a wireless network, beginning with access to spectrum, that may provide spectrum incumbents with the incentive to acquire additional spectrum via auction for the purpose of preventing access to potential competitors. In the Department's view, this would be an inefficient use of spectrum, were it to occur.

6. In this environment, the Department asks if conditions do in fact exist to justify the implementation of measures such as spectrum set-asides and aggregation limits in an effort to lower barriers to entry for potential wireless providers. In the Consultation Paper, the Department sets out Competition Principles intended to guide the assessment of whether or not such measures should be implemented. The Bureau supports these principles. However, in this submission the Bureau is not taking a position on whether or not these measures are presently necessary. The focus of this submission is to outline, from a

² Statistics Canada, *Telecommunications Statistics, fourth quarter 2006 and 2006*, Cat. No. 11-001-XIE, May 14, 2007. Online: Statistics Canada, <<http://www.statcan.ca/Daily/English/070514/d070514.pdf>>

competition policy perspective, the key issues the Department should consider in making such an assessment.

7. Section 2 of this submission will discuss the issues surrounding the appropriateness of intervention in greater detail. Section 3 will deal with the specific factors to consider in applying measures (i.e., set-asides and aggregation limits) intended to enable entry in a spectrum auction. Section 4 will discuss the implications of another major barrier to entry in the wireless market referred to in the Consultation Paper, restrictions on foreign investment. Section 5 will discuss issues related to mandated roaming. Section 6 will discuss the conditions of licence proposed in the Consultation Paper. Section 7 is a discussion of auction design, band plan, and service areas principles.

2.0 ENABLING MARKET ENTRY

8. The Consultation Paper specifically seeks comments on “whether there is a need for measures intended to enable market entry in the AWS spectrum auction.”³ Again, the Bureau is not taking a definitive position on whether these measures are necessary in this case, nor is it commenting on whether the wireless market is sufficiently competitive. In this submission, the Bureau provides its comments on the approach that the Department should take in assessing the market to determine whether facilitating entry may be appropriate.

9. For a potential wireless service provider, access to spectrum is an absolute barrier to entry – spectrum is required to provide service, has no functional substitutes, and cannot be replicated or replaced by any physical or financial means. At the same time, spectrum is a public resource that the Department has been entrusted with to allocate in the best interest of all

³ Spectrum Management and Telecommunications Policy, “*Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*” (Ottawa: Industry Canada, 2006) at 22. Online: Spectrum Management and Telecommunications Policy <<http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/home>> [*Consultation Paper*]

Canadians. The Department has instituted an auction framework to allocate that spectrum, but as the Consultation Paper points out, where there are a limited number of competitors and large entry barriers, reliance on market forces may not result in the most efficient allocation of spectrum.

10. In its *Framework for Spectrum Auctions in Canada*,⁴ the Department outlines the rationale for allocating spectrum using an auction-based process. As the Department notes, absent market power concerns, market forces can identify firms that value spectrum the most and thus have the incentive to put it to most efficient and innovative use. Rather than have the Government attempt to identify these firms *ex ante*, an open auction relies on the risk assessment and industry knowledge of the firms themselves. Auctions are also transparent, procedurally efficient, and maximize revenues for Canadian taxpayers.

11. If there are market power concerns, measures to enable entry may be necessary to promote efficiency and innovation. In such cases, the considerable advantages that incumbents have in an open auction may reflect their market power and not an ability to put the spectrum to the most efficient and innovative use. For this reason, the Competition Principles outlined in the Consultation Paper that govern when intervention in the auction process may be necessary. These principles assess the existence of market power, likelihood of entry and the costs and benefits of facilitating entry.

12. The Bureau recognizes that the objectives of spectrum policy, such as enabling competition and encouraging efficiency and innovation, can potentially conflict. The Competition Principles, applied strictly, should properly evaluate the trade-off between conflicting objectives. However, where the Department places greater importance on a specific objective (e.g., encouraging competition by

⁴ Spectrum Management and Telecommunications Policy, *“Framework for Spectrum Auctions in Canada: Issue 2, October 2001”* (Ottawa: Industry Canada, 2001). Online: Spectrum Management and Telecommunications Policy <<http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/home>> [*Spectrum Framework*]

enabling entry) when assessing the costs and benefits of intervention, it should make that emphasis explicit prior to applying the principles.

13. In the Bureau's view, the justification for intervention should be that market forces are insufficient to meet the Department's stated objectives. Namely, it should be the case that market power exists and is unlikely to be disciplined by entry, such that competitiveness or innovation are adversely affected from the Department's perspective. It must also be shown that potential entry would be effective and discipline the exercise of market power, rather than simply temporarily destabilize the market. In other words, a need for intervention must be demonstrated where reliance on market forces should be default. Indeed, where intervention is required, it should be designed to address the market failure while still harnessing market forces; that is, the intervention should make markets work better, rather than replace markets with an administrative process. The Bureau discusses the relevant factors to consider in making this assessment in the next section.

3.0 SPECIFIC MEASURES OF INTERVENTION

3.1 Restricting Participation

14. In its *Framework for Spectrum Auctions in Canada*, the Department's Principle 1 states that:

With regard to restricting participation, it is the view of the Department that an entity that currently provides telecommunications services should be restricted from holding certain licences if:

- (a) that entity possesses significant market power in the supply of one or more telecommunications services in a region covered by the licence to be auctioned;*

- (b) a new entrant is likely to use the licence to provide services in competition with that entity's existing services; and
- (c) the anti-competitive effects of that entity acquiring a licence are not outweighed by the potential economies of scope arising from the integration of the spectrum in question into that entity's existing network.⁵

3.1.1 Assessing Market Power

15. As a competition law agency, the Bureau has significant experience assessing market power, and describes the process at length in its *Merger Enforcement Guidelines*⁶ (“the MEGs”) and its *Draft Information Bulletin on the Abuse of Dominance Provisions as Applied to the Telecommunications Industry*⁷ (“the draft TAB”). In this submission the Bureau intends only to summarize these documents and instead focus on the relevant issues and questions the Department faces in this context. Briefly, market power is the ability of a firm to act independently of competitive discipline to a material degree; i.e. it is the ability of a firm to profitably cause price (or non-price components of competition such as quality, variety, service, etc.) to significantly deviate from competitive levels for a sustainable period of time.

3.1.1.1 Market Definition

16. Market power assessment begins with defining relevant product and geographic markets, i.e. “one or more telecommunications services in a region covered by the licence to be auctioned” in Principle 1 of the *Spectrum Framework*. Defining relevant product and geographic markets involves identifying competitors that are likely to be able to constrain the ability of a firm to

⁵ *Ibid* at 2.

⁶ Competition Bureau, *Merger Enforcement Guidelines*, (Ottawa, Industry Canada, 2004). Online: Competition Bureau Canada <<http://www.cb-bc.gc.ca>>.

⁷ Competition Bureau, *Draft Information Bulletin on the Abuse of Dominance Provisions as Applied to the Telecommunications Industry*, (Ottawa, Industry Canada, 2006). Online: Competition Bureau Canada <<http://www.cb-bc.gc.ca>>.

profitably raise price (or reduce non-price dimensions as mentioned above). The Bureau uses the “hypothetical monopolist” framework as explained in the draft TAB and the MEGs to determine the smallest group of substitute products such that a single profit-maximizing firm (the hypothetical monopolist) would have an incentive to impose a small but significant non-transitory increase in price (a “SSNIP”) above competitive levels. In other words, the relevant product market will encompass the original product and set of all substitute products such that, if controlled by a single firm and subject to a SSNIP, consumers would not switch their purchases to other products. The same method is used to identify the smallest geographic area over which that SSNIP would occur without causing consumers to switch their purchases to firms in other locations.

17. In this context, the Department must assess the relevant retail product market at issue in this auction and the particular services (e.g. voice and data) in the AWS bands and in related bands (e.g. PCS) that will be offered by incumbents and potential entrants. To constitute a relevant product market, the characteristics of those services must sufficiently differentiate them from other technologies (e.g. wireline and IP telephony) such that consumers would not switch to those technologies in the face of a SSNIP. The Bureau’s draft TAB identifies several factors to consider in assessing substitutability, including the views, strategies, and behaviour of consumers, the end use of the services, their physical and technical characteristics, and consumer switching costs.

18. With respect to spectrum, it may be the case that the technical properties and licensing conditions of the relevant bands serve to delineate the services that will comprise the relevant product market. Similarly, the relevant geographic market for the purposes of applying Principle 1 should likely be limited to the region covered by each licence. Where consumers in different licence areas have the same competitive alternatives (i.e. the same incumbent licensees offering the same services), it may be appropriate to aggregate those areas into a single geographic market, on either a regional or a national basis.

3.1.1.2 Market Shares

19. Having defined relevant markets, it is then necessary to identify all competitors that actually or potentially constrain the exercise of market power by the incumbent firm(s). The Bureau looks at several indicators in assessing market power, most importantly market shares and barriers to entry.

20. Market shares are a proxy for market power, and high market shares are usually necessary but not sufficient to establish significant market power. Market shares can be measured in terms of revenues, demand units, or capacity; in the draft TAB, the Bureau outlines how capacity typically represents an important measure of market power in telecommunications. Where firms have unused or excess capacity, they have the incentive and ability to compete for customers in response to any increase in price, which may discipline any attempt by other firms to raise price above competitive levels. Although market shares based on revenues may suggest one or more firms hold significant market power, a consideration of market shares based on capacity may reflect much stronger competition.

21. In this case, the Bureau recommends that the Department carefully consider capacity in assessing market shares to determine each firm's ability to provide service and acquire customers. Capacity in this case will include spectrum holdings in relevant bands (i.e. bands that are functional substitutes for AWS, such as PCS), physical and technical limitations, and customer acquisition costs, among others. For example, spectrum capacity varies inversely with usage; it may be the case that a firm with a large market share based on revenues, and in turn, high usage of its spectrum, is in fact capacity constrained and unable to offer new services or compete for additional customers. Conversely, a firm with fewer customers and lower revenues may in fact have substantial excess capacity and thus the incentive and ability to add customers

or offer a wide scope of new services. At the same time, acquiring customers beyond a certain level of network usage may involve prohibitive investment costs. The Bureau suggests that the Department consider all of these factors in making any assessment of market shares, focusing on firms' ability to compete for and acquire customers.

3.1.1.3 Barriers to Entry

22. As mentioned, however, high market shares alone are not sufficient to establish significant market power. Without barriers to entry, any attempt by a firm with high market share to exercise market power is likely to be met with entry or expansion such that the firm would lose enough customers to its rivals, making an attempt to raise prices above competitive levels unprofitable.

23. In this consultation, the Department has recognized that access to spectrum is a clear barrier to entry. However, there are other barriers to entry in the wireless market that must still be considered; these will be discussed in the next section dealing with the likelihood of entry outlined in the second condition of Principle 1.

3.1.1.4 Other Factors

24. In addition to market shares and barriers to entry, the Bureau generally considers other factors in assessing market power as well, including the potential for coordinated behaviour, countervailing power on the part of buyers, and the extent of innovation and technological change.

25. While a group of firms may each be exercising unilateral market power, they may still have an incentive to engage in coordination if coordination is potentially profitable, which may further reduce competition. Coordinated behaviour can involve tacit or express understandings on price, service levels,

allocation of customers or territories, or any other dimension of competition. The MEGs outline a number of factors that may make coordinated behaviour among firms more likely or effective. In general, coordinated behaviour is only likely to be sustainable when firms are able to recognize mutually beneficial terms of coordination, monitor one another's conduct, and respond to deviations through credible deterrent mechanisms. As well, coordination must not be threatened by external factors, such as the responses of other competitors or the reactions of buyers.

26. The Bureau assesses several factors when analyzing the potential for coordinated behaviour. In assessing whether firms can independently recognize mutually beneficial terms of coordination, the Bureau will examine product homogeneity and cost symmetries among firms; firms with similar cost structures and product offerings will find profitable coordination easier than firms in markets with rapid and frequent product innovations.

27. In assessing whether firms can monitor deviations, the Bureau examines the stability of underlying costs and the degree of market transparency; if price information is widely available, coordinated behaviour is easier to monitor. At the same time, if costs fluctuate regularly, it may be difficult to separate cost-based price changes from deviations from coordination.

28. Finally, in assessing whether firms can credibly deter deviations from coordinated behaviour, the Bureau examines the degree of multi-market exposure and the degree of excess capacity that exists in the market. If firms are each participating in multiple product and/or geographic markets, there is broader scope for firms to punish deviating behaviour. Excess capacity also allows firms to punish deviations by oversupplying the market; however, excess capacity also allows deviating firms to sell at lower prices, making the effect on coordinated behaviour ambiguous. Finally, the Bureau will examine whether there is a history of collusion or cooperation in the market, suggesting that coordinated behaviour

may be sustainable. All of these factors may make the coordinated exercise of market power more likely and effective than the independent exercise of unilateral market power.

29. Independent of any coordinated behaviour assessment, however, the extent of innovation and technical change is still a key factor the Bureau looks at in assessing market power. This may be particularly important in the wireless market, especially if incumbent firms can leapfrog one another by introducing new services, or if a potential entrant can do the same and capture new customers quickly.

3.1.2 Assessing the Likelihood of Entry

30. The second bullet of the Department's Principle 1 for restricting participation states that "a new entrant is likely to use the licence to provide services in competition with [the incumbent(s)] existing services." As the Bureau's MEGs state, entry must not only be likely, but also timely and sufficient; i.e. it must be effective enough to discipline the exercise of market power within a reasonable period of time. Assessing all of these factors necessitates an examination of barriers to entry.

31. The Consultation Paper recognizes that beyond access to spectrum, there are remaining barriers to entry in the market for wireless services. There are large fixed and sunk costs to establishing a wireless network, including extensive capital investments in facilities and large economies of scale in building out to reach additional customers. There are access costs to sharing towers and roaming out of territory. There are barriers to acquiring customers given that many are in long-term contracts, which creates switching costs. And finally, there are regulatory barriers, most notably foreign ownership restrictions that limit access to capital. This will be discussed in greater detail in the next section.

32. Given that significant barriers exist beyond spectrum, the Department must assess whether entry as the result of setting aside spectrum will in fact be effective enough to discipline any exercise of market power by the incumbents. This will require a careful assessment of the business plans of potential entrants: are their strategies credible? Will they be offering differentiated or innovative services? Can they acquire customers? Can they add their services to a bundle of products? On what scale will they be entering? Can they use spectrum as or more efficiently than the incumbents?

33. In particular, the Department will need to assess the viability of national versus regional entry strategies. Do potential entrants intend to build or share a national network or merely provide service within certain regions? In the latter case, will out-of-territory roaming be accessible? If an entrant is unable to offer service out of its home territory, or can only offer it at high cost, do consumers consider their network a functional substitute for incumbents with national networks? Or is a regional network in fact a separate relevant product market for customers that have no need for out-of-territory service, and one that will not effectively be competing with national providers? These are all considerations for the Department in assessing business plans, and some will be discussed in a later section on whether roaming agreements should be mandated.

3.1.3 Effects of a Set-Aside

34. The third bullet of Principle 1 requires that “the anti-competitive effects of [the incumbent(s)] acquiring a licence are not outweighed by the potential economies of scope arising from the integration of the spectrum in question into [the incumbent(s)] existing network[s]”. In other words, the Department must assess whether incumbents would in fact use new spectrum most efficiently.

35. As with assessing market shares, the key issue is the capacity of the incumbents within the relevant bands. Are the incumbents capacity constrained,

in which case they may need additional spectrum in order to add new services? Do they have existing excess capacity, suggesting additional spectrum would be put to inefficient use? In other words, do they have a business justification for acquiring additional spectrum, or, in the absence of such a justification, do they have an anti-competitive purpose (such as hoarding spectrum to prevent entry) for acquiring more? Or will restricting participation have a deterrent effect on incumbent network investment and use of existing spectrum?

36. In general, if a firm has market power (by capacity), and there are no clear economies of scale or scope (e.g. new or higher-valued services, lower costs) to acquiring additional spectrum, the Department must examine the evidence and business plans of the incumbents and determine on a balance of probabilities whether there is a valid efficiency reason for acquiring more spectrum, or, in the absence of one, whether there is a valid anti-competitive theory. Similarly, as the Department explains in its Consultation Paper, it must determine on a balance of probabilities whether there is a greater potential cost to not enabling entry versus enabling entry that is potentially uneconomic. The Bureau does not have a preliminary opinion on which of any of these scenarios is more likely, but will examine parties' initial comments in this consultation and make further comments in the reply stage.

3.1.3.1 Bidding Credits

37. Another mechanism for the Department to consider is a system of bidding credits. Bidding credits are similar in function to set asides, but are a price-based instrument as opposed to a quantity-based one. If, following Principle 1, the Department finds that an incumbent firm or group of firms possesses significant market power and may act anti-competitively to maintain or enhance that market power, rather than restrict incumbent participation completely the Department can issue bidding credits to potential entrants, effectively discounting their auction price for spectrum. Bidding credits provide an advantage to potential

entrants, but still allow incumbents to bid if, independent of the value they put on preserving their market power, they still value spectrum more than potential entrants and have the incentive to use it most efficiently. Ideally, bidding credits can be used to redress the balance between incumbents and entrants. This is accomplished by setting the level of the credit to compensate for the incumbents' incentive to discourage entry. Bidding credits are a more flexible instrument with which to address entry failures. On the other hand, set asides provide more certain entry, and thus send a stronger signal to motivate potential entrants. Both instruments should be considered if intervention is deemed necessary.

3.2 Spectrum Aggregation Limits

38. In its *Spectrum Framework*, the Department's Principle 2 states that:

With regard to applying spectrum aggregation limits, it is the view of the Department that when multiple licences for the use of spectrum in a given geographic area are auctioned, and these can be used to provide closely substitutable services, limits on the amount of spectrum that any single bidder is allowed to acquire may be required to ensure competitive markets. Spectrum aggregation limits may be imposed in the following circumstances:

- (a) a bidder that acquires an amount of spectrum beyond a certain level would not face effective competition from providers of closely substitutable services provided by firms that use infrastructure other than the spectrum being auctioned; and*
- (b) the anti-competitive effects arising from the acquisition of an amount of spectrum beyond a certain level by a single bidder would not be offset by lower costs or higher valued services resulting from having a single entity hold this amount of spectrum.*

39. The first bullet of Principle 2 is essentially a restatement of the hypothetical monopolist test: it is an exercise to find the level of spectrum, when acquired, such that the holder of that spectrum would not face competitive discipline from other wireless providers. The second bullet is essentially a restatement of the third bullet of Principle 1, which has been discussed above. From a competition policy perspective, the factors to be considered in applying spectrum aggregation limits are the same laid out above for applying set-asides, and as before, the Bureau does not currently have the evidence to take a definitive position, but will be reviewing comments put on the record by other parties.

4.0 FOREIGN INVESTMENT RESTRICTIONS

40. The Department notes in the Consultation Paper that it is important to consider the effect that Canada's foreign investment restrictions may have on the free operation of the telecommunications market and the ability to rely solely on market forces in the forthcoming spectrum auction. This suggests that the foreign investment restrictions may contribute, at least in part, to any perceived or actual lack of competition in wireless telecommunications markets that the measures contemplated (i.e., set-asides and spectrum aggregation limits) would be intended to address. As discussed further below, the Bureau is firmly of the view that foreign investment restrictions do limit competition. However, the Bureau submits that the appropriate way to compensate for any lack of competition attributable to the foreign investment restrictions is to remove them and not to simply accept them as a harmful contributor to a competitive environment in need of fixing.

41. While the Bureau recognizes that such action is beyond the scope of this Consultation, the Bureau submits that it is dangerous, especially when determining how to allocate a resource as valuable as spectrum, to use one regulatory barrier to competition as justification for the imposition of other

regulatory limits on market forces. Rather, the Bureau submits that for the purposes of determining whether regulatory limits on the free operation of market forces in the spectrum auction are justified, the Department should consider the effects of foreign investment restrictions on the strength of the new entry that the regulatory limits would be intended to enable.

42. In the Bureau's view, the foreign investment restrictions are intimately tied to the viability of new entrants into wireless services markets. In considering whether the Department's Competition Principles justify the imposition of measures to enhance competition then, the Department must consider the effect of the restrictions on any new entrant's ability to constrain incumbent market power.

43. As the Department notes in the Consultation Paper, foreign investment restrictions have the effect of limiting potential entry in the telecommunications market thereby reducing the competitive discipline that the threat of entry can provide. In particular, the Bureau considers that foreign investment restrictions are a barrier to entry that can provide incumbents with absolute cost advantages over potential entrants.

44. The provision of telecommunications services is extremely capital intensive and entry into, and survival within, the telecommunications services market will depend in large part on service providers having access to equity capital and debt at market rates. In its 2003 review of Canada's foreign investment restrictions, the Standing Committee on Industry, Science and Technology (the Committee) recommended that Canada eliminate the restrictions entirely.⁸ The Committee's recommendation was based in large part on its conclusion that "...foreign ownership restrictions raise the cost of capital

⁸ Standing Committee on Industry, Science, and Technology, "Opening Canadian Communications to the World" (Ottawa: House of Commons Canada, 2003) at 11. Online: <<http://cmte.parl.gc.ca/Content/HOC/committee/372/inst/reports/rp1032302/instrp03/instrp03-e.pdf>>

which, in turn, reduces capital investment”.⁹ In this regard, the Committee found that new entrant firms or Competitive Local Exchange Carriers were particularly hard hit. Because foreign ownership restrictions limit the amount of available capital from which these companies can draw, they are forced to substitute debt capital for equity capital, thereby raising their debt-equity ratios. According to the Committee’s findings, “...higher debt-equity ratios among the new entrants mean greater financial leverage and increased vulnerability to failure...”.¹⁰

45. More recently, the Telecommunications Policy Review Panel (the Panel) recommended that restrictions on foreign investment in telecommunications service providers be liberalized.¹¹ This basic position was supported by most of the parties that participated in the Panel’s review and across the traditional incumbent-new entrant divide. Just as the Committee had concluded in its study three years before, Primus Canada testified to the Panel that the restrictions had hit it, and other new entrants, the hardest. Primus commented that the restrictions had prevented it from building a telecommunications carrier operation, which in turn has limited its ability to make greater investments in certain telecom technology and to finance new business initiatives.¹²

46. The Organisation for Economic Co-operation and Development (OECD), which has urged Canada to eliminate foreign ownership restrictions in telecommunications¹³, has also noted the negative effects of foreign investment restrictions on the cost of capital and on competition more generally. In particular, the OECD has cautioned that the restrictions “...impact negatively on the development of competition in Canada in that they effectively limit investment in

⁹ *Ibid* at 19.

¹⁰ *Ibid* at 18.

¹¹ Telecommunications Policy Review Panel, Final Report, (Ottawa: Publishing and Depository Services Public Works and Government Services Canada, 2006) at 11-25. Online: <<http://www.telecomreview.ca>> [TPRP Report]

¹² Comments of Primus Canada to the Telecommunications Policy Review Panel, August 15, 2005 at para. 74. Online: <<http://www.telecomreview.ca>>

¹³ OECD Economic Policy Reforms: “Going for Growth 2007,” Canada Country Note at 8. Online: <<http://www.oecd.org/dataoecd/48/22/38088884.pdf>>

the sector, increase the cost of capital and can delay the diffusion of new technology.”¹⁴ In addition, the OECD has found that “...new entrants have to rely on debt rather than equity financing and they are limited in their ability to access foreign equity capital. Foreign ownership restrictions also reduce the demand for Canadian shares and impact on their price. Improved access to foreign equity capital would help in meeting Canadian objectives of enhancing competition and meeting the government’s goal of ‘connectedness’.”

47. All of this suggests that there is fairly widespread consensus in the telecom sector that liberalizing the foreign ownership restrictions would, as the Panel concluded¹⁵, likely result in significant improvements in the quality, pricing and availability in wireless services in Canada – the very result that the measures contemplated in this Consultation are intended to achieve.

48. Indeed, the Panel considered that the case for liberalization of the restrictions is strongest in the newer, emerging markets such as those in the mobile and fixed wireless markets.¹⁶ However, the Panel recognized that removal of the foreign ownership restrictions may have implications on broadcasting policy and recommended that, pending the completion of a government review of these issues, the government adopt a phased and flexible approach to liberalization of restrictions on foreign investment in telecommunications.¹⁷ In keeping with these conclusions, the Bureau considers that, short of full-scale removal of the restrictions on foreign investment in telecommunications carriers, consideration might be given to liberalization of the restrictions in the wireless sub-sector of the telecommunications sector.

¹⁴ OECD Reviews of Regulatory Reform, “Regulatory reform in Canada from transition to new regulation challenges, Regulatory Reform in the Telecommunications Industry” at 18. Online: <<http://www.oecd.org/dataoecd/48/28/1960562.pdf>>

¹⁵ *Supra* 11 at 11-20.

¹⁶ *Ibid* at 11-21.

¹⁷ *Ibid* at 11-25.

5.0 MANDATED ROAMING

49. Roaming agreements can reduce the costs of new entry and increase the business case for regional entry. In other words, mandating roaming can reduce barriers to entry. However, mandated roaming can also undermine the incentives for investment in the facilities needed to become a national facilities-based wireless network. Specifically, it may create an incentive for new entrants to make infrastructure investments only in lower cost areas while relying on mandated roaming in high cost areas.

50. From a competition policy perspective, a denial of access to roaming could raise an issue under the Competition Act if the following conditions are present:

- A vertically integrated firm is dominant in two markets. The first relevant market is the upstream market (i.e., the market for wholesale roaming services). The second relevant market is the downstream retail market (i.e. the market for retail wireless service).¹⁸
- A denial of wholesale roaming services is for the “purpose” of excluding competitors from entering or expanding in the downstream market or otherwise negatively affecting their ability to compete.
- The denial has had, is having, or is likely to have the effect of substantially lessening or preventing competition in the downstream (i.e. retail) market.

51. The potential adverse effects on the incentive to invest depend importantly on the pricing principles adopted. If the price of mandated roaming is set too low relative to efficient levels, it may undermine the incentives to invest. If prices are similarly set too high, for example at or above the retail price in the relevant geographic market, the adverse effects on investment may be modest.

¹⁸ Note that, by the very nature of roaming, the geographic markets may be different at the wholesale and retail levels.

52. The ability of an allegedly dominant firm to exercise market power in the downstream market will depend on the willingness and ability of consumers to switch to alternative providers who do not rely on roaming to provide national service. If that firm does not have downstream market power, the denial of roaming cannot amount to an abuse of dominance and access should not be mandated.

6.0 LICENCE TERM, RENEWAL, AND IMPLEMENTATION REQUIREMENTS

53. The Bureau supports the Department's proposals regarding the licence term, renewal process and implementation requirements. A 10-year licence term is sufficient for companies acquiring spectrum to demonstrate that they are using the spectrum in the manner intended. The Bureau sees no reason for imposing interim implementation requirements with a review earlier than 10 years. An implementation review period would constrain the ability to develop a secondary market for spectrum, which is an option that the Bureau believes should be available to spectrum licence holders.

54. The Bureau supports the proposal the Department to require a licence review process prior to the expiry of the licence period in order to ensure that the terms of the licence have been met. The only caveat that the Bureau would suggest is with respect to the proposal to review the renewal application at year 8. In the event of withdrawal of the licence, end-use consumers will need time to make other arrangements. Uncertainty may arise in the market if the time period for the review and any subsequent appeal process is too close to the end of the licence period. Such time constraints may lead to pressure for licence extensions regardless of a conclusion by the Department that the licence holder has not fulfilled its obligations under the terms of the licence. In that regard, renewal applications at year 7 should provide sufficient time for a full review by

the Department and for end-use consumers to rearrange their affairs in the event of the revocation of any licence.

7.0 AUCTION DESIGN, BAND PLAN, AND SERVICE AREAS

55. The Department advocates a simultaneous multiple-round (SMR) auction format, as has been used in prior auctions in Canada and elsewhere. Although the format has appeared to work reasonably well, there is now a substantial theoretical and empirical literature on its limitations. The Bureau urges the Department to consider enhancements to the SMR format that will facilitate competition in the auction, and more importantly, lessen the possibility of entry-blocking strategies by incumbents. Along these lines, the simplest change to consider is anonymous bidding, which prevents certain collusive signalling strategies. A second feature to consider is package bidding—the ability to bid on packages of license. A key advantage of package bidding is that it may facilitate the entry of an entrant with a nationwide business model. Incumbents could easily block such an entrant, if package bids were not allowed (absent a set aside). With package bids, the nationwide entrant can safely bid for the nationwide coverage it needs without fear that it will end up winning only some of what it needs (the so-called exposure problem).

56. The band plan and the service areas can also play an important role in promoting competition, especially in the absence of package bids. For example, adapting the band plan to the needs of incumbents can discourage entry, especially when the needs of incumbents differ from those of new entrants. In general, the band plan and geographic scheme should allow as much substitution as possible, to allow for competition at the margin. This is often best done with a clock auction in which the band plan is determined—at least to some extent—in the auction. Such an approach is being adopted in future spectrum auctions in the United Kingdom.

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