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June 27, 2007

Mr. Leonard St-Aubin  
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Industry Canada  
300 Slater Street  
Ottawa, Ontario K1A 0C8

Sent via email: [AWS@ic.gc.ca](mailto:AWS@ic.gc.ca)

Dear Mr. St. Aubin:

**RE: Canada Gazette, Part I, Saturday, February 24, 2007, Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services – DGTP-002-07**

Rogers Communications Inc. (Rogers) appreciates the opportunity to provide reply comments on the above-noted consultation.

Rogers is pleased the Department is releasing spectrum for mobile services as it will contribute to continued growth of the industry and will help ensure that Canadians continue to benefit from access to superior telecommunications services.

The documents are being sent in Adobe PDF Version 5.0. Operating System: Microsoft Windows XP.

Yours very truly,

A handwritten signature in black ink, appearing to be "K. Engelhart", with a long horizontal line extending to the right.

Kenneth G. Engelhart  
Vice President - Regulatory  
Attach.

**Reply Comments of Rogers Communications Inc.  
(Rogers)**

Canada Gazette Notice No. DGTP-002-07

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

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<u>Table of Contents</u>	Page
Executive Summary	i
Addressing the Potential for New Entry	1
Competition Principles	1
Need for Measures Intended to Enable Market Entry in the AWS	9
Spectrum Auction	
Penetration	10
Pricing	16
Number of Carriers	20
Innovation	21
Impact of New Entrants	25
Spectrum Set asides	29
The Need for Set Asides	29
Financial Capacity of New Entrants	30
Missed Opportunities	32
Previous Incumbents	32
Previous Auctions	33
Post-Auction Opportunities	37
Acquisition Opportunities	37
Government and Agency Positions	38
Set Asides in Canada	39
History of Set Asides	40
The United Kingdom	41
The United States	42
Sweden	43
Ireland	44
Austria	45
Switzerland	45
Germany	46
Definition of a New Entrant	46
Spectrum Aggregation Limit on Auction Spectrum	47
Incumbents Require AWS Spectrum for Advanced Services	48
Mandated Roaming	50
Mandated Resale	55
Network Unbundling	60
Tower Sharing	62
Impact for a Merger Between Telus and Bell	65
Spectrum Bands	68
AWS Service Areas	70
Licence Term, Renewal and Implementation Requirements	72
R&D	75
Implementation Requirements	76
Payment of Auction Fees	76
Appendix 1: Analysis Study	79
Appendix 2: Chronology of PCS Blocks Transferred Since February 2001	
Appendix 3: Merger Activity in the United States Cellular Industry since 1995	

## **Executive Summary**

This reply submission has been prepared by Rogers Communications Inc. (Rogers) in accordance with the procedures for public comment established by Industry Canada in its *Consultation on a Framework to Auction Spectrum in the 2 GHz Range, Including Advanced Wireless Services* (the Consultation Paper).

Rogers stated its position on all of the issues raised in the Consultation Paper in its initial comments of May 25, 2007. This reply is therefore limited to comments on proposals made by other parties. Failure to address any specific issue raised by other parties should not be taken by the Department as acquiescence with the position. Rogers' May 25, 2007 comments embody the company's preferred position on every issue.

Much of the debate in this public consultation revolves around the degree of regulatory intervention that is warranted in the auction process. This includes the three key issues of spectrum set-asides, spectrum aggregation limits and mandated roaming.

The correct answer to the question of whether regulatory mechanisms are required to stimulate competition in the mobile wireless market turns on whether this market is a competitive one – or is subject to significant market power. The Department has indicated that this is the test, the Competition Bureau has affirmed this view and the Government of Canada, through the Governor in Council's Policy Direction to the CRTC, has agreed.

Those arguing in favour of regulatory intervention claim that the market is not competitive and that incentives are required to assist new entrants to participate in the auction process.

Both of these contentions are ridiculous and fly in the face of any reasonable analysis of the market.

The mobile wireless industry is the most dynamic segment of the Canadian telecommunications market. It consistently produces the highest growth levels, the most competition, and the most rapid deployment of new technology and service innovations of any element of the Canadian telecommunications market.

The mobile wireless industry is not only a Canadian success story – it validates a long term regulatory policy that has been designed to place competitors on an equal footing and allow market forces to operate to the benefit of consumers. This policy has produced quantifiable benefits for consumers in terms of network coverage and quality, service options, and pricing. This has also produced high levels of demonstrable customer satisfaction.

Canadian Average Revenue Per Minute (ARPU) is the fifth lowest in the OECD, having fallen by 43% from 2000 to 2005 and by 31% over the past five years. At the same time, Minutes of Use Per Capita is the fifth highest in the OECD and penetration is growing rapidly at 10% per year. This very clearly validates the fact that Canadians find their wireless services to be both a valuable and reasonably priced services.

A recent study performed by Analysys Consulting confirmed Rogers' pricing competitiveness. In reviewing what the typical Rogers customer would have to pay to get the same service elsewhere, Analysys found that subscribers are generally significantly better off in Canada than in the U.S. while prices compare quite favourably with Europe as well. In fact, in most cases, if a Canadian subscriber were to buy the same suite of services in the U.S. that they currently receive from Rogers, they would pay between 40% - 55% more.

The competitiveness of the industry has been confirmed many times by the Competition Bureau, the CRTC and the Government of Canada itself.

In addition to three competitive facilities-based national carriers and a number of regional carriers, the Canadian market has fostered additional competition from Mobile Virtual Network Operators (MVNOs) such as Videotron, Virgin Mobile, and amp'd Mobile. These, and other resellers, increase choice for Canadians, and are themselves evidence of competition. These MVNO arrangements were freely negotiated in a competitive environment in the absence of any regulatory requirement. This stands in sharp contrast to the wireline market, where wholesale arrangements must be mandated by the regulator and enforced through tariffs and orders.

The number of competitors in the Canadian wireless market exceeds the requirement of three carriers which the Governor in Council deemed sufficient for residential wireline forbearance. In addition, the number of competitors in the market is consistent with experience in other OECD countries.

Rogers and the other wireless carriers in Canada also compare well with other countries from the point of view of advanced services. For example, not only does the Canadian penetration of BlackBerry devices exceed that of the U.S., but we also lead the U.S. in terms of deployment of entertainment and multimedia product offerings. This includes Rogers' North American first in the launch of video calling. Over 22 years, Rogers has invested approximately \$7 billion in nine successive network platforms, staying at the forefront of new technology.

It is equally ridiculous for parties such as Quebecor Media, Shaw Communications and MTS Allstream, to argue that they need Government assistance to participate in the AWS auction on equal terms with Rogers. These are companies that are among the largest, most successful, communications companies in Canada. They all enjoy over a billion dollars in capitalization and two of these companies have been involved in multi-billion dollar acquisitions in the recent past. To suggest that they need Government largesse to participate in a spectrum auction is just not tenable.

Two of these three companies are former stakeholders in a mobile wireless company (Microcell) and both of them chose to liquidate their holdings in that company on their own volition, long before Rogers' acquisition of Microcell. Now they want special regulatory mechanisms to assist them in re-entering a market that they voluntarily chose to vacate.

The third company, MTS Allstream, is already a wireless carrier with by far the largest market share in its operating territory. It also owns a national wireline carrier that is fully capable of exploiting a national wireless licence if the company was only willing to make the necessary investment.

None of these companies needs Government assistance to enter the market and it would short-change Canadian taxpayers to offer them any kind of special deal to entice them into the market.

We therefore recommend that Industry Canada support the current regulatory environment of the mobile wireless industry, treating all stakeholders evenly and fairly, and preserving the industry's demonstrated competitiveness.

There should be no set aside for new entrants, as this would unnecessarily interfere with the efficient allocation of scarce spectrum resources, inviting entry by speculators with no interest in building a new network or offering services. Spectrum set-asides are mechanisms that regulators can use to dictate outcomes in spectrum auctions. They produce distortions in the auction process and in the marketplace.

- They encourage uneconomic entry by removing spectrum from the full competitive bidding process. This tends to lower the price of spectrum available to new entrants below its fair market value.

- They limit the amount of spectrum available to incumbents, thereby increasing the price of the remaining spectrum that is available to them and possibly limiting their ability to acquire sufficient spectrum to satisfy their business plans.
- They also reduce the revenues available to the government from the sale of spectrum.

Industry Canada already has a policy on spectrum set-asides. That policy only justifies a set-aside when a carrier is demonstrated to have “significant market power.” The Competition Bureau has already determined that the mobile wireless industry is subject to “vigorous and effective competition”; and the CRTC has found that it is “robustly competitive”. Furthermore, the tests for local forbearance established by the Governor in Council would also dictate that this market is not subject to significant market power by any of the three national facilities-based incumbent carriers. By any of these measures, there is no basis for regulatory intervention in the proposed auction process.

Similarly, there should be no auction cap which limits a bidder’s ability to acquire spectrum, nor any type of spectrum cap. Spectrum aggregation limits constitute another form of regulatory intervention that are designed to interfere with the efficient allocation of resources pursuant to an open auction process.

Again, Industry Canada has already established principles for applying spectrum cap aggregation limits. These principles contemplate a carrier acquiring so much spectrum that it would not face “effective competition.” This is extremely unlikely to occur in the current market conditions in which we have three well-financed competitors in all regions of Canada and the prospect of new entrants also bidding on spectrum. In prior auctions there has been no evidence of any one carrier dominating the others, and there is no reason to expect it to occur in this instance.

There should be no mandated roaming either in or out of territory. Canadians already have access to international roaming arrangements and the networks of Canadian wireless carriers are already integrated into a single interconnected network allowing communications with each other.

While international roaming between non-competing carriers is very common, mandated domestic roaming between competing carriers is very rare.

Mandated roaming penalizes incumbent carriers who have invested heavily in network facilities, effectively negating any competitive advantage gained through substantial investment, by making the service coverage area available to a competitor without requiring any investment on their part. This would also provide an incentive to new entrants to “cherry pick” lucrative markets. Mandated roaming will lead to less facilities-based competition, not more. It would also diminish competition among carriers based on territorial coverage and network technology. It would “homogenize” network services and seriously diminish the type of choices that Canadians currently expect from their wireless industry.

Any roaming arrangements should be voluntary and subject to negotiated commercial terms, as is the case for the current MVNO and reseller arrangements.

To contend, as have some parties, that MVNO arrangements do not increase competition, or that such arrangements are unworkable, is again unsupported by the facts. Virgin Mobile Canada has achieved a customer base of 400,000 in just two years, and is projecting a level of 500,000 subscribers. This type of market penetration would be impossible if resale terms were unreasonable. Yet this market share has been achieved without any regulatory intervention. There are numerous other examples of MVNOs and resellers competing aggressively in

this market. This validates the competitiveness of both the wholesale and retail mobile wireless markets in Canada.

In the remainder of this submission, Rogers has addressed the many misstatements made by parties who advocate Government intervention and special deals for new entrants. Rogers firmly believes that all such mechanisms are distortionary and counter-productive, when introduced in competitive markets.

Of the three principal measures proposed, mandated roaming constitutes the greatest intrusion into the competitive market since it basically negates any advantage that a carrier might have achieved by investing capital to build out its wireless network. Mandated roaming among all carriers is the worst form of mandated roaming since it would cause most carriers to cease building out their networks in higher cost areas. This would cause carriers to gravitate to a single network model, with similar service offerings and pricing packages. This would negate the Government's policy in favour of facilities-based competition and would be counter-productive. It would also be extremely unfair to shareholders of wireless carriers that have risked their capital to build out their networks in higher cost areas only to be told that their competitors can now take advantage of the fruits of their investment.

Spectrum set-asides are the next most intrusive form of regulatory intervention since they basically subsidize new entry by placing spectrum in the hands of new entrants at below fair market value. This reduces the amount of scarce spectrum available to other carriers, depletes the public revenues generated by the auction, and could encourage either uneconomic entry or speculation by parties with no intention of ever building a network.

Auction caps are also distortionary since they interfere with the open-bidding process inherent in an auction process and they may limit the ability of some

carriers to satisfy their legitimate requirements for more spectrum. Spectrum caps require the Government to decide for competitors how much spectrum they need to fulfill their business plans. This is very risky in an environment where the Government does not know what those plans are. Spectrum aggregation limits can therefore hold back legitimate growth by competing carriers and dictate competitive outcomes.

However, auction caps are less distortionary than spectrum set-asides since they still force all carriers to pay a comparable price for the spectrum they obtain and they do not encourage uneconomic entry and speculation to the same extent as spectrum set-asides.

Rogers reiterates that none of these regulatory measures are necessary or justified given the state of competition in the Canadian mobile wireless market and all are inconsistent with Government policy as expressed in the Policy Direction to the CRTC, the Government's criteria for regulatory forbearance in local telephone markets and Industry Canada's own policies as expressed in the Consultation Paper. Given the competitiveness of the Canadian mobile wireless market, any of these mechanisms could produce highly distortionary effects.

Finally, recent announcements by Telus Corp. about a possible acquisition of Bell Canada Inc. should in no way change the need for any intervention in the auction. No doubt the Competition Bureau will conduct a full assessment of such a merger, if it was to occur, and any steps proposed by Telus to revise auction rules would be premature and unnecessary. It is up to the Bureau to determine any measures or divestitures. Further, such measures must be imposed strictly upon the merged entity and should not impact any other incumbents such as Rogers.

For these reasons, Rogers stands by its position of opposing all three of these regulatory mechanisms as expressed in its submission of May 25, 2007.

## Responses to Specific Consultation Questions

### 2.7 Addressing the Potential for New Entry

**In consideration of the present circumstances, the Department seeks comments on whether there is a need for measures intended to enable market entry in the AWS spectrum auction.**

## 1. Competition Principles

In its submission, the Bureau states that it supports the Competition Principles set out in the Consultation Paper, but is not taking a position on “whether or not these measures are presently necessary.”<sup>1</sup>

Given the Bureau’s familiarity with the competition principles in question, and given the fact it completed a detailed market evolution of the mobile wireless market in 2005 – just two years ago – Rogers is surprised at the reluctance to comment on whether regulatory measures are required in the current circumstances of the market. These circumstances remain the same as when the Bureau last examined and made public its determinations with respect to the competitiveness of the industry and the likelihood of competitive entry.

In its discussion of circumstances that might give rise to a need for regulatory intervention, the Bureau affirmed that the pre-requisites for regulatory intervention are (1) the existence of market power; and (2) the unlikelihood of market power being disciplined by competitive entry.

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

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<sup>1</sup> Competition Bureau Comments, May 25, 2007, at para. 6.

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.<sup>2</sup>

Applying these principles to the current mobile wireless market, there is ample evidence to satisfy the Department and the Bureau that the market is not characterized by “market power” or “market failure.” In fact, the Bureau found quite the opposite circumstances existed in 2005. It found that there would continue to be “vigorous and effective competition” remaining following the consummation of the merger between Rogers and Microcell that it was reviewing.

As noted in Rogers’ comments of May 25, 2007, the CRTC has made similar determinations on several occasions over the past decade.<sup>3</sup>

Rogers agrees with the Bureau’s definition of market power, as set forth in section 3.1.1 of its comments:

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.

As stated by the Bureau, market power is assessed by reference to the ability of a firm to raise prices without regard to competitive pressures from other firms.

In 2005, the Bureau expressly found the opposite circumstances to exist. It found that the three principle carriers respond to each other’s price changes and go after each other’s customers.

There were a number of factors behind the Bureau's finding that there would continue to be vigorous and effective competition remaining

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<sup>2</sup> Ibid., at para 13.

<sup>3</sup> Rogers Comments, May 25, 2007, at pages 12 to 14.

following the merger, some of which included the introduction of a variety of new plans that combine minutes of use, handsets, service features and prices; the ability of competitors to add new customers, and; the willingness of Bell Mobility, Rogers and Telus Mobility to respond to price changes by others and to go after each others' territories.

The Bureau found that the competitive history of Bell, Telus and Rogers in the mobile telecommunications market also supported this conclusion.

This was reinforced by the nature of competition in other telecommunication and broadcast distribution markets where these firms also compete.<sup>4</sup>

The CRTC found similar rivalrous behaviour to exist when it noted, "there is significant rivalry among competitors as demonstrated by the media advertising blitzes and price rivalry, and that consumers are aware of alternative wireless service providers."<sup>5</sup>

There is ample evidence that this continues to be the case today. As demonstrated in the Tables at pages 17 and 18 of Rogers May 25, 2007 comments, aggressive competition in the Canadian wireless market has shifted the carriers' market shares by more than 20% over the past five years. Furthermore, if one looks at market share on a regional basis, there is no consistent pattern. While Telus leads Rogers and Bell in market share in British Columbia and Alberta, SaskTel and MTS lead in Saskatchewan and Manitoba respectively, Rogers leads in Ontario, Bell Mobility leads in Quebec and Aliant leads in Atlantic Canada. Furthermore, while Telus trails both Rogers and Bell Mobility in Ontario and Quebec, in terms of market share, it surpassed Bell in Ontario in respect of net subscriber additions in 2006, and exceeds both Bell and Rogers in this respect in Quebec. Again, these statistics confirm this is a dynamic, highly competitive industry.

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<sup>4</sup> Competition Bureau, Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc. at p. 2.

<sup>5</sup> Telecom Decision CRTC 98-4. Joint Marketing and Bundling (24 March 1998).

In the same five year period, per-minute revenue has dropped significantly. Far from being able to sustain price increases, fierce competition between the carriers has forced each of them to reduce their prices in order to retain their existing customers as well as attract new ones.

The Bureau's test for assessing whether market power exists comes no where close to being satisfied in the Canadian mobile wireless market. Prices are dropping – not rising, there are three strong national facilities-based carriers as well as a number of regional carriers, and aggressive MVNOs and resellers. Market shares are shifting, and the advertising media are replete with competitive offers designed to attract new users and win customers over from other carriers. The recent introduction of wireless number portability can be expected to simply increase this competitive activity by making it easier for customers to switch carriers.

This is easily the most competitive sector of the Canadian telecommunications market, it does not exhibit market power, and it is not in need of regulatory intervention.

In its comments, the Bureau recommended that the Department consider capacity in assessing each firm's ability to provide service and acquire customers:

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.<sup>6</sup>

While there is no evidence to suggest any of the existing wireless mobile carriers is capacity-constrained in the sense that term is used by the Bureau, they could become capacity constrained in the event that a free, open auction is not conducted. None of the three national facilities-based carriers has had to ease up on their customer acquisition efforts or turn customers away to date. The new services which are now being launched (television, movie downloads, video calling, music downloads etc.) all use much more bandwidth than voice services. This means that each carrier should be given an opportunity to purchase the amount of spectrum they need to satisfy the bandwidth requirements of the services they wish to offer. If this ability to purchase spectrum is constrained by artificial auction rules, capacity constraints could impair competitiveness for the reasons cited by the Bureau. As a result, a policy intended to increase competition could have the paradoxical effect of reducing competition.

As discussed in section 4 of Rogers' May 25, 2007 comments, it is the shift to broadband and other AWS services that is now driving the demand for spectrum, – not the need to serve conventional cellular or PCS customers.

The last five years have seen dramatic change in both the capability and types of services that are provided by mobile wireless operators. New 3G-based technologies, such as HSDPA which has been deployed by Rogers, have enabled the evolution of the cellular industry from a supplier of predominantly narrowband voice, text-based data services and dial-up speed Internet to a multimedia industry that delivers high quality voice, broadband data and video services over its infrastructure.

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<sup>6</sup> Bureau's Comments, May 25, 2007, at para. 21.

One of the most significant recent changes has been the availability of 'always-on' broadband wireless IP connectivity to the Internet (and to Intranets) from mobile devices. This has fundamentally changed how consumers use their devices, whether such devices are phones, personal computer data cards or other mobile devices. Always-on wireless broadband, provided by 3G networks such as Rogers Wireless' network, now allows Canadian consumers to have a user experience similar to that of wireline Internet services such as cable or DSL. The emergence of new device form factors, such as smartphones, broadband-enabled PDAs, sub-notebooks and ultra-mobile PCs, will all serve to drive increasing demand for wireless broadband data services.

In this environment, all the major wireless carriers will be participating in the auction seeking new spectrum. No one carrier is expected to be in a position to successfully bid for all of the spectrum and the only possibility of there being insufficient spectrum will be if the Department decides to limit the incumbents' participation in the auction, or withhold spectrum from them through artificial regulatory mechanisms such as set-asides or spectrum caps. If competitive market forces are allowed to operate, the spectrum will be allocated in an efficient manner.

As regards the likelihood of new entry, even if regulatory mechanisms were to be put in place, the Bureau had this to say about their likely effectiveness:

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.<sup>7</sup>

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<sup>7</sup> Bureau's Comments, May 25, 2007, at para. 30.

The Bureau went on to recount the various barriers that make the success of any new entry that might be incited by regulatory mechanisms to be doubtful at best:

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.<sup>8</sup>

This is an important point. The Bureau is saying that one should not interfere with market forces by introducing regulation mechanisms – unless they are likely to succeed in attracting sustainable new entry that will actually discipline the incumbent’s market power (assuming in the first place that market power exists).

This step is of course not necessary if no market power is found to exist, as is the case in the Canadian mobile wireless market – but it is instructive to consider the second part of the Bureau’s test in any event, since it too is not satisfied in this instance.

As noted by the Bureau, other barriers to entry exist, which are all very significant. These factors led it to conclude in 2005 that “New entry at the facilities-based level was considered highly unlikely.”

The barriers to entry for facilities-based mobile wireless operators are very high (high capital costs to construct and run networks as well as regulatory barriers relating to the availability of the necessary spectrum and cell site development). New entry at the facilities-based level was considered highly unlikely.<sup>9</sup> (emphasis added)

As noted by Rogers in its May 25, 2007 comments, independent reports by Scotia Capital and BMO Capital Markets confirm this view. In an article entitled

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<sup>8</sup> Ibid., at para. 31.

<sup>9</sup> Competition Bureau. Acquisition of Microcell Telecommunications, at pages 1-2.

“Fourth Wireless Entrant Economics Don’t Work”, Scotia Capital does not see new entry as a likely scenario:

But entry is a long shot. We have modeled a fourth wireless entrant under optimistic, realistic, and pessimistic scenarios. Only the high unlikely optimistic case works for an investor, and it would not reach breakeven EBITDA and FCF until 2012 and 2014 respectively, while earnings dilution to an owner would exceed \$400 million per year in 2009-2011.<sup>10</sup>

It is not the cost of spectrum that leads Scotia Capital to reach this conclusion. It is the prospect of entering a market that will be 64% penetrated by the launch date, which is already served by three experienced and competitive national facilities-based carriers, regional carriers, and MVNOs and resellers, and which requires a large investment with relatively distant returns.

BMO Capital Markets has reached a similar conclusion stating that “the business case for a fourth facilities-based wireless carrier would be highly risky and not likely provide an attractive economic return.”<sup>11</sup>

One of the key hurdles facing a new entrant will be achieving the necessary scale to compete in the mobile wireless industry. Like most telecommunication services, the cost structure to provide wireless service is defined by high fixed costs and low marginal costs. It is only when a carrier has achieved a critical mass in volume, generating revenues in excess of the fixed costs, that the business model begins to work. It is therefore essential for a mobile wireless carrier to meet these economies of scale.

It was due to the incumbents’ failure to achieve this scale that the mobile wireless industry suffered substantial losses for the first 20 years of its existence in Canada. Each carrier was forced to invest billions of dollars to deploy their

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<sup>10</sup> Scotia Capital. Daily Edge. (May 16, 2006), at page 1.

<sup>11</sup> BMO Capital Markets. Wireless Fourth Carrier-Low Probability/High Impact Event. (December 5, 2006), at page 1.

network and incur millions of dollars more in annual costs and interest payments to maintain it.

The incumbent carriers have only recently managed to reach the minimum efficient scale. It is only with the subscriber levels reached in the last two years that carriers have managed to cross the critical point and generate revenues in excess of the fixed costs. It is for that reason that the mobile wireless carriers have just recently started to report their first profits after 20 years of operation.

A new entrant will be hard pressed by these economic realities. It will have to bear the same fixed costs that the incumbents have had to bear as it deploys its facilities. Not only will it then have to generate the critical mass of subscribers to offset these costs, it will have to do so in a highly penetrated market while competing with three established national facilities-based carriers and numerous other regional carriers and resellers. Achieving these necessary economies of scale will prove very difficult for any prospective new entrant.

In these circumstances, it does not appear that the Bureau's second test could be satisfied in this instance – even if the market were characterized by a dominant firm – which it is not. Given this situation, there are no grounds for regulatory intervention in the AWS auction based on the competition principles advocated by the Bureau and adopted by the Department.

## **2. The Need for Measures Intended to Enable Market Entry in the AWS Spectrum Auction**

The Canadian wireless industry is the most dynamic, competitive sector of the Canadian telecommunications market. In just over twenty years, networks have been deployed over one of the largest wireless territories in the world, covering over 98% of the population. In their effort to differentiate themselves and increase market share, Canadian carriers have achieved many technological

firsts, continuously rolling out the latest advances in handsets, features and services. Prices are falling while subscriber levels increase. The vitality of the Canadian wireless industry is demonstrated in the extraordinary levels of satisfaction expressed by wireless subscribers.

In spite of the wireless industry's competitive nature and achievements, many submissions claimed that the wireless market lacks any sense of rivalry, continuing the misinformation campaign that has been waged for months leading up to the AWS consultation. Acting for no other purpose than their own economic interest, many participants attempted to paint an uncompetitive picture of the wireless industry. Many did so without any supporting evidence. Others attempted to distort the industry by using selective statistics, improper context and, in several instances, simple hyperbole. These claims, while glaring on the surface, cannot withstand any reasonable scrutiny.

The following sections will examine many of these claims and provide the necessary background and context to better understand the state of competition in the Canadian wireless industry.

### ***A) Penetration***

When it comes to the Canadian wireless industry, there is probably no more abused statistic than penetration. MTS Allstream claimed Canada's penetration levels "earned Canada the unenviable distinction of being second to last in the OECD in mobile wireless adoption."<sup>12</sup> Quebecor added "At the end of 2004, Canada's mobile penetration ranking had slipped to 29 out of 30 among OECD countries"<sup>13</sup> Toronto Hydro further added, "The 2005 (ITU) report identifies that Canada at December 2005 had a penetration of 52.5 mobile subscribers per 100 inhabitants; the USA had 71.5, Italy 124.3, Ireland 102.9, Germany 95.8 and

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<sup>12</sup> MTS Allstream Submission, May 25, 2007, at page 10.

<sup>13</sup> Quebecor Submission, May 25, 2007, at page 24.

Australia 91.4. These statistics leave little doubt that Canadian cellular penetration has, by contrast to most developed countries, been extremely weak.”<sup>14</sup> Cogeco also claimed that in terms of penetration levels Canada’s “mobile wireless market is underperforming in relation to the United States and with most member countries of the OECD.”<sup>15</sup> These sentiments were echoed by several other submissions.

Unfortunately, these raw penetration studies illustrate very little about the relative level of wireless adoption between countries. As Telus explained, “comparing Europe and North America (or virtually any two distinct countries) is like comparing apples and oranges.”<sup>16</sup> None of the submissions accusing Canada of falling behind bothered to provide the necessary context, limitations and differentiating factors that explain the penetration gaps between Canada and the rest of the world. Instead they dismiss any attempts to demonstrate these differences, calling it quibbling.<sup>17</sup>

To properly measure penetration levels though, the following must be accounted for:

- Multiple SIMs – All European countries use a single wireless technology known as GSM. GSM handsets use replaceable chips known as SIM cards. In order to avoid expensive roaming charges and to take advantage of off-peak calling in different areas, European customers subscribe to multiple subscriptions from different carriers for their single phone. This artificially drives up the penetration figures. According to Wireless Intelligence, average number of SIMs per user can range as high as 1.75.<sup>18</sup> In Canada, with only one GSM carrier, there are relatively few instances of multiple subscriptions per user.

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<sup>14</sup> Toronto Hydro Submission, May 25, 2007, at page 12.

<sup>15</sup> Cogeco Submission, May 25, 2007, at page 17.

<sup>16</sup> Telus Submission, May 25, 2007, at page 24.

<sup>17</sup> MTS Allstream Submission, May 25, 2007, at page 14.

<sup>18</sup> Wireless Intelligence, April 2007 and Vodafone, May and November 2006.

- Calling Party Pays (CPP) – In Europe and in many other regions, the regulators have instituted a regime known as CPP. Under CPP, a subscriber only pays for outgoing calls, incoming calls are free. This again artificially increases the penetration levels as a customer can subscribe to a wireless service at little to no cost. In Canada, the CRTC decided to institute a Mobile Party Pays regime, resulting in subscribers paying for all wireless calls. This regulatory decision has reduced wireless penetration in Canada.
  
- Substitutes – Canada’s efficient landline network provides an effective substitute to wireless service. In fact, at 65.1%, Canada ranks third in the world in landline penetration.<sup>19</sup> In many countries, customers are forced to subscribe for wireless service as the landline service is expensive and unreliable or subject to long waiting lists. This again drives up other countries’ penetration levels in relation to Canada, especially in developing nations.

Taken together, these factors close the alleged gap between Canada and other countries. As illustrated in Rogers’ original submission and below, Canada’s adjusted penetration level is actually quite comparable to many members of the OECD.<sup>20</sup> In fact, in urban areas, Canada matches or exceeds most countries.

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<sup>19</sup> Merrill Lynch. Global Wireless Matrix. 1Q07.

<sup>20</sup> Rogers Submission, May 25, 2007, at page 33.

<b>Date</b>	<b>Country</b>	<b>SIMs/user reported data*</b>	<b>Reported penetration</b>	<b>Real penetration</b>
May 06	Italy	1.75	126%	72%
May 06	Spain	1.44	108%	80%
May 06	UK	1.42	113%	80%
May 06	Germany	1.25	98%	78%
May 06	France	1.17	77%	66%
Nov 06	Romania	1.25	71%	57%
Nov 06	Turkey	1.25	68%	54%
Nov 06	S. Africa	1.30	68%	52%

*Source: Vodafone, May and No 2006, Wireless Intelligence Apr 2007*

The gap between Canada and its closest neighbour, the United States, can also be explained. MTS Allstream pointed out that “the gap between Canada’s mobile wireless penetration levels and those of other countries appears to be increasing. In the United States, for example, the Mobile penetration is 77% which means that out of 100 people roughly 20 more Americans use mobile phones than Canadians.”<sup>21</sup> MTS Allstream further alleged that Canada’s national wireless carriers “do nothing to explain why mobile wireless penetration rates in the United States are much higher than in Canada or why the gap between Canada and the United States (not to mention other OECD countries) is widening.”<sup>22</sup> Quebecor made similar accusations when it stated that “in 2006 mobile penetration in the US, our neighbor and largest trading partner, increased from 70% to 78% of the population. During the same year, in Canada, mobile

<sup>21</sup> MTS Submission, May 25, 2007, at page 11.

<sup>22</sup> MTS Allstream Submission, May 25, 2007, at page 14.

penetration increased from 52% to 57%. Essentially, even though Canada's mobile market is substantially less mature than the US market, its growth rate is substantially slower than the growth rate experienced in the US."<sup>23</sup>

These comments fail to provide the proper history of wireless deployment in each country and then completely misconstrue the actual growth rates. When comparing Canada and the United States, it is essential to keep in mind that the U.S. launched its wireless service a year and a half before Canada<sup>24</sup>. In addition, with its higher disposable income and larger economy, the U.S. commonly adopts new technologies and services faster than Canada. The U.S. therefore built an early advantage over Canada.

However, for the last 20 years, Canada has matched U.S. growth step for step. Canada growing from 52% to 57% from 1986 to 1996<sup>25</sup> represents an identical 10% growth rate as the U.S.' growth from 70% to 77%. Apparently, Quebecor miscalculated when it suggested that Canada's growth rate was "substantially slower than the growth rate experienced in the US".<sup>26</sup> Simply by starting each year with a larger base than Canada, the U.S.' gap over Canada will continue to widen in spite of our equal growth. Maintaining the same growth rate with as dynamic a market as the United States however is evidence of the efforts made by Canada's wireless carriers to expand their customer bases.

MTS Allstream's attempt to demonstrate a growing gap between Canada and the U.S. as well as with the U.K. from 1995 to 2005 is also misleading.<sup>27</sup> It attempted to show that the number of "years behind" Canada was to the U.S. and the U.K. was higher in 2005 than in 1995, therefore showing a deteriorating situation. To

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<sup>23</sup> Quebecor Submission, May 25, 2007, at page 8.

<sup>24</sup> Wall Communications Inc. A study on the Wireless Environment in Canada. (September 29, 2006), at page 27.

<sup>25</sup> Wall Communications Inc. An Examination of Issues raised in the Telecommunications Policy Review Panel's March 2006 Report regarding the Canadian Mobile Wireless Services Industry (September 29, 2006), at page 10.

<sup>26</sup> Quebecor Submission, May 25, 2007, at page 25.

<sup>27</sup> MTS Allstream Submission, May 25, 2007, at page 15.

begin with, comparing the wireless industry in 1995 with the industry in 2005 is comparing apples and oranges. In 1995, the wireless industry was small, relatively high cost and targeted primarily to businesses, with lower cost consumer packages just emerging. By 2005, the industry was 15 million strong, affordable and aimed at the mass consumer market. All of the factors that affect penetration levels listed above (e.g. multiple SIMs, CPP, and higher disposable income in the US) only began to truly influence penetration levels as the number of subscribers grew and the market moved its orientation from business to consumer. Trying to compare these two eras is misleading.

The metric used to show the “growing” gap itself is also questionable. Penetration expressed as “years behind” will obviously be marginal early in wireless history when little time had passed and minimal penetration achieved. The “years behind” will grow as penetration grows over time, even if both countries are growing at the same rate. In other words, two countries can have identical growth rates and the gap will continue to widen simply as a matter of time. The statistic might make for a nice graph but it does not provide any insight into the relative competitiveness of different wireless industries.

It is interesting that MTS is so critical of Canada’s penetration rates. In Manitoba, the province where it operates and is the carrier with the largest market share, the penetration rate for wireless is far below the national average at 41%.<sup>28</sup> MTS criticized Canada’s performance because of the significant “base of un-served subscribers”<sup>29</sup> yet lags in this regard itself. It remains unclear how a company that trails significantly in penetration would make a difference if it were to obtain a national licence.

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<sup>28</sup> QSI Consulting Inc. The State of Wireless Technologies in Canada. A Comparison of Wireless Technologies in Canada and the United States of America (May 2007), at page 52.

<sup>29</sup> MTS Allstream Submission, May 25, 2007, at page 15.

Finally, Quebecor's and MTS Allstream's claim that there are 6.5 million "missing" subscribers in Canada simply does not make any commercial sense.<sup>30</sup> This figure was derived by applying the U.S.' penetration rate to Canada's population. To suggest that three aggressive corporations such as Bell, Telus and Rogers would willingly forgo these customers and the \$4 to \$5 billion in revenues they represent is simply not in keeping with their business histories. Each of these companies' Sales and Marketing groups are more than anxious to attract new customers to their network and in fact work tirelessly to do so.

In the end, due to all these limitations, penetration is not a good metric to measure wireless adoption. As Rogers pointed out in its original submission, a far more accurate metric to measure adoption is usage per capita. On a per capita basis, Canadians have the fifth highest minutes of use of wireless service in the OECD. This clearly shows how important wireless service has become to Canadians.

## ***B) Pricing***

Canada's wireless pricing has also been criticized in several submissions. MTS Allstream claimed "Canada is also home to some of the highest wireless service pricing in the OECD."<sup>31</sup> Harmony Mobile stated that "Canada, compared to other countries, has high monthly bills for high mobility telephone and internet access."<sup>32</sup> Quebecor paid particular attention to the apparent differences between Canada and the U.S., when it quoted Seaboard Group, "For the heavy mobile phone user, the penalty for being Canadian is a cell phone bill that is 1.5X higher than a comparable U.S. bill. The premium for being Canadian is only 16% when compared to the average European user."<sup>33</sup>

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<sup>30</sup> Quebecor Submission, May 25, 2007, at page 25 and MTS Allstream Submission, May 25, 2007, at page 15.

<sup>31</sup> MTS Allstream, May 25, 2007, at page 13.

<sup>32</sup> Harmony Mobile Submission, May 25, 2007, at page 1.

<sup>33</sup> Quebecor Submission, May 25, 2007, at page 29.

Again, these submissions make very selective use of available statistics to support their arguments. They choose to ignore that Canada ranks third in the G8 for lowest rate per minute, and sixth among developed countries.<sup>34</sup> They failed to mention that Canadian wireless prices have fallen consistently over the last 5 years.<sup>35</sup> They forgot to explain that Canadian wireless carriers subsidize their customers' handsets for up to hundreds of dollars per unit out of monthly service charges - whereas most other countries do not. On many scales, Canada is a world price leader.

Many submissions instead referred to the Seaboard study as the basis for their arguments. This study attempted to demonstrate that wireless prices in Canada were higher than other countries. As explained in the Wall report, the packages used for Seaboard's comparison failed to properly characterize the average Canadian subscriber.<sup>36</sup>

A recent study conducted by Analysys Consulting shows a clear picture of what Canadians would pay for their existing services abroad (see Appendix 1). Analysys took the profile (minutes, features, SMS etc) of an average Rogers' customer for low, medium, high and family usage and applied the same profile to several other countries including the U.S., Sweden, Netherlands, Norway, U.K., France, Germany and Italy. Rogers' rates proved very competitive.

In the first case, Analysys compared Rogers with the leading American carriers using standard basket price methodology. Using a typical Rogers suite of services, Rogers had better prices than Verizon and AT&T at low, medium and family plan usage levels. In fact, in most cases, a Rogers subscriber pays between 29% and 35% less in Canada for their wireless service, then if they

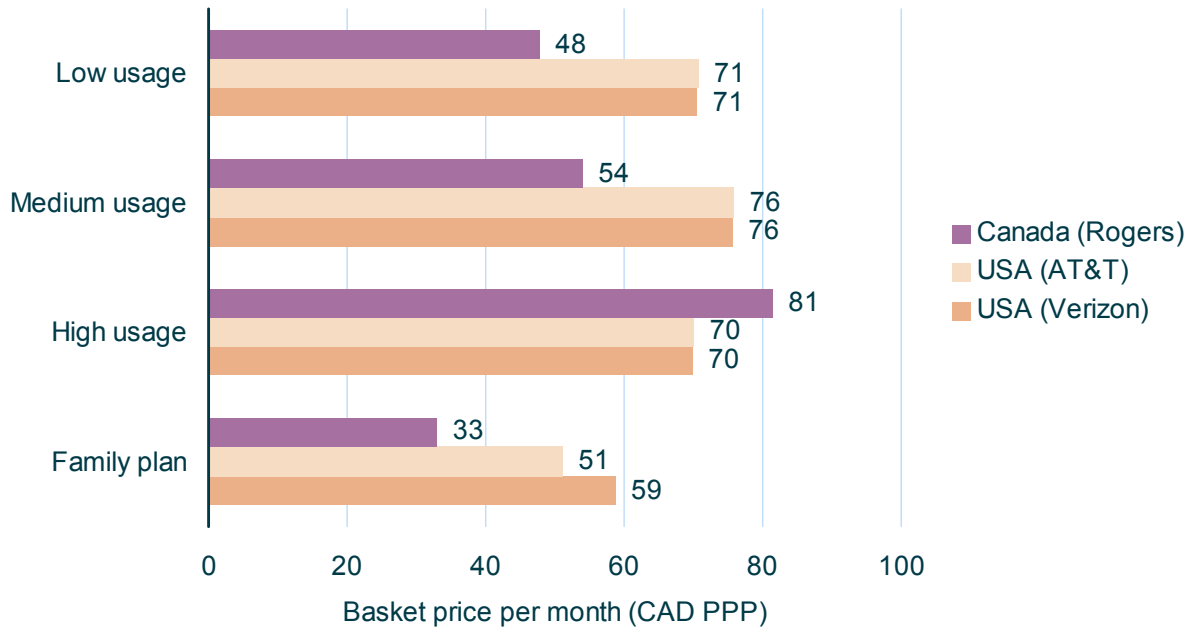
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<sup>34</sup> Merrill Lynch. Wireless Matrix 4Q06.

<sup>35</sup> Wall Communications. A Study on the Wireless Environment in Canada (September 29, 2006), at page 46.

<sup>36</sup> Wall Communications Inc. "A critique of the methodology used in the Seaboard Group's March 2007 Cross-National Comparison of Wireless Service Prices. (April 13, 2007), at page 11.

bought the same service in the United States. A summary of these savings is illustrated below:

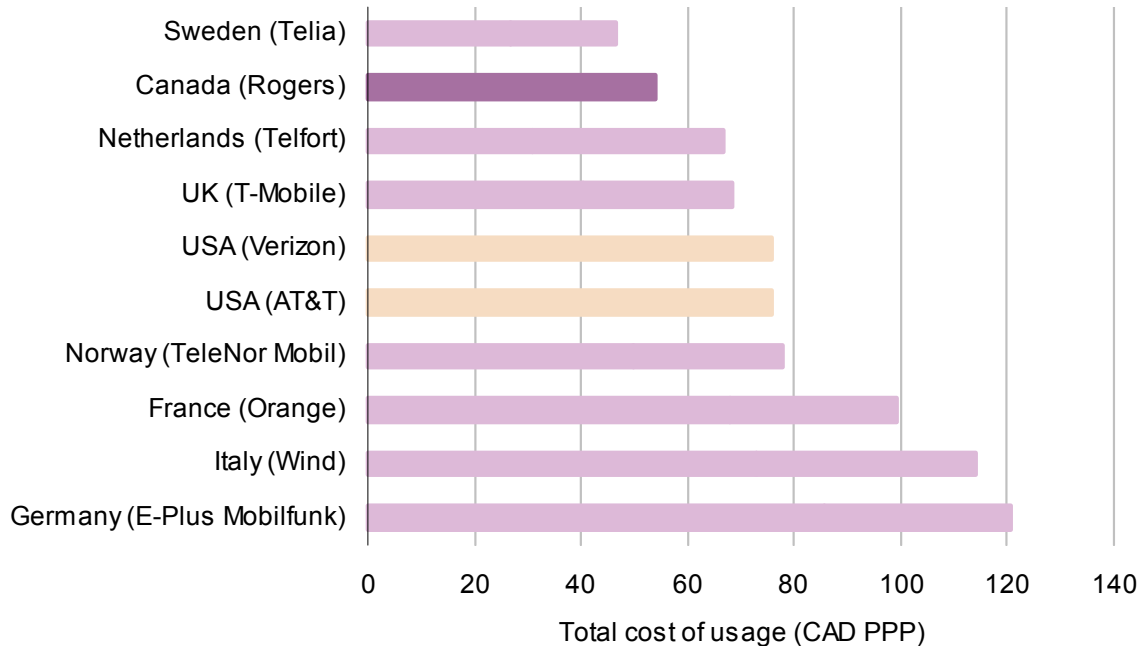


Source: Analysys Consulting Limited. *Talk is cheap in Canada: an inter-country comparison of mobile wireless prices* (June, 2007) p. 13.

In the second case, Rogers also compared very favourably with the European carriers once the prices are adjusted for the difference in payment regimes, which most studies fail to do. Due to fundamental differences in between the North American and European wireless markets, it is not appropriate to compare prices from one region to the other using standard basket price methodology commonly used by analysts and regulators. In North America mobile subscribers pay for both incoming and outgoing calls, known as Mobile Party Pays (MPP); by contrast in Europe subscribers only pay for outgoing calls, known as Calling Party Pays (CPP). However, under CPP, the carriers are still earning termination revenues on the incoming calls. It is still the European consumer who pays this price, even if the costs are not shown as retail revenue.

Adjusting for this difference, Rogers proved very competitive. At low usage, our rates were fifth lowest, almost identical to the United Kingdom. For medium

users, Rogers had the second best rates available (see below). For high users, Rogers finished just behind Sweden, the U.S. and the Netherlands. For family packages, Rogers was fifth lowest. Overall, Rogers compares very favourably to much of Europe and the United States.



Source: Analysys Consulting Limited. *Talk is cheap in Canada: an inter-country comparison of mobile wireless prices* (June, 2007) p. 17.

In spite of the industry's price competitiveness, many submissions still contended that Canadian prices are high. What is puzzling however is that MTS Allstream is one of the loudest critics. When one looks at Canada's ARPU figures, MTS Allstream has a monthly ARPU that is higher than other carriers. In fact, according to figures from Merrill Lynch, its monthly ARPU is second highest among the Canadian carriers at \$58.40 in 2006.<sup>37</sup> In fact, MTS' ARPU has risen every year since 2002.<sup>38</sup> Yet MTS argued Canada's prices are too high and

<sup>37</sup> Merrill Lynch Global Wireless Matrix Q1/07, page 89.

<sup>38</sup> *Ibid.*, at page 89.

asked the Government to institute “special provisions” to ensure a new entrant to increase competition in Canada’s “underperforming mobile wireless market”.<sup>39</sup> Once again, it is hard to understand how MTS Allstream will create new competitiveness when it has among the highest prices of any wireless carrier in Canada.

### **C) Number of Carriers**

Many submissions argued that special accommodations must be made to introduce a new carrier into the mobile wireless market as there are fewer carriers in Canada than the rest of the world. In fact, some continued to state that it is the number of carriers that is influencing penetration levels. For example, Quebecor argued “The poor mobile penetration performance of Canada does not imply that incumbent Canadian mobile carriers are poor operators. Rather, our assessment is that it is indicative of a lower overall competitive rivalry in Canada compared to other countries, as a result of the fact that Canada has fewer mobile operators than what is generally found in other countries.”<sup>40</sup>

This is inaccurate. In Canada, the number of national carriers is very consistent with the rest of the world. As Rogers pointed out in its original submission, out of 30 developed countries 14 had three or less carriers.<sup>41</sup> Another 11, including the United States, had a single carrier more. On top of that, many of the countries with two or three carriers have in fact higher penetration than those with more carriers. Canada is therefore in line with the rest of the world and the number of carriers does not appear to have any correlation with wireless adoption.

In addition, the concentration of carriers in Canada is far less than in most other countries. The top two carriers in Canada have a combined market share of

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<sup>39</sup> MTS Allstream Submission, May 25, 2007, at page 15.

<sup>40</sup> Quebecor Submission, May 25, 2007, at page 26.

<sup>41</sup> Rogers Submission, May 25, 2007, at page 7.

68.6%<sup>42</sup>. That is far less than most other developed nations, including countries with more than three national facilities-based carriers. Without a dominant carrier, Canada's wireless carriers compete strongly against each other, with no one able to assert any market power.

Furthermore, the number of carriers operating in Canada is in fact greater than three. In the discussion about the "correct" number of competitive carriers, too much attention is paid to the three national facilities-based carriers and not enough attention to the other participants in the Canadian wireless industry. Canada has two large regional carriers who in fact dominate their respective provinces. Both MTS Allstream and SaskTel compete very successfully against Rogers, Bell and Telus.

In addition, a growing number of MVNOs and resellers are providing competitive alternatives. Contrary to the allegations by Toronto Hydro that none of the MVNOs place "downward pressure on rates or upward pressure on service",<sup>43</sup> Rogers carefully watches the sales and marketing activities of each MVNO in order to maintain our competitiveness, including Virgin Mobile Canada as it continues to build market share. As the number of subscribers these resellers capture grows, they will have an increasing influence on the Canadian market.

#### ***D) Innovation***

Canada has one of the most innovative wireless industries in the world and carriers have achieved many "firsts". The last several years has seen the deployment of many 3G services, providing Canadians with the latest advanced services.

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<sup>42</sup> Merrill Lynch. Global Wireless Matrix 1Q07. (15 June 2007), at page 2.

<sup>43</sup> Hydro Submission, May 25, 2007, at page 7,

Many submissions however attempted to dismiss these accomplishments and suggest Canada is technologically backward. Toronto Hydro went so far as to say, “By contrast to our trading partners as well as some third world countries, Canada is the world’s tail ender in the deployment of 3G.”<sup>44</sup> They then continued, “Canada’s implementation of the AWS has placed Canada five or more years behind our leading industrial competitors. This places Canada on par with Tanzania and Nigeria, placing Canada at a clear disadvantage.”<sup>45</sup> MTS Allstream alleged that Canada “has also been slower to deploy the next generation of mobile wireless services and features, particularly based on third generation or 3G technology. For example, in its 2006 Report to the Minister of Industry, TPRP noted that the deployment of 3G systems in Europe took place more than four years ago in 2002 and in the United States in 2004.”<sup>46</sup> Mipps claimed “It is evident that in Canada, market forces alone have served to retard rather than encourage innovation.” Going on to add that if comparing Canada’s level of innovation and market penetration with other countries “the picture is much less inspiring.”<sup>47</sup>

Similar statements have been made in the press by these and other parties in the months leading to the consultation.

The reality is that Canada has implemented 3G services, many have been offered for years. Some of the key dates include the following:

- Mid-2007 - Telus plans to launch EV-DO Revision A upgrade
- April 2007 - Rogers is first company in North America to launch video calling on HSDPA handset with launch of Rogers Vision; Bell launched EV-DO Revision A upgrade
- February 2007 - Bell announced exclusive content from GOLTV (Canada’s 24-hour soccer network) for customers with video-cable

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<sup>44</sup> Toronto Hydro Submission, May 25, 2007, at page 5.

<sup>45</sup> Ibid., at page 5.

<sup>46</sup> MTS Allstream Submission, May 25, 2007, at page 13.

<sup>47</sup> Mipps Submission, May 25, 2007, at page 5.

mobile phones; Bell announces “Mobile Movies” providing full-length pay-per-view movies to video-capable phones

- November 2006 - Rogers launched UMTS/HSDPA 3G upgrade
- December 2006 - Bell announced availability of first phone in Canada with built in FM transmitter, MP3 player and access to largest music download catalogue
- August 2006 – Rogers is the first carrier in Canada to offer a media player to deliver content for BlackBerry with launch of bbTV; Bell announced music video ringtones
- July 2006 - Telus and XM Canada announced Telus Mobile Radio, real time streaming of satellite radio for mobile phones
- February 2006 – Rogers is the first carrier in North America to launch a mobile Podcast service
- January 2006 - Bell announced nationwide availability of exclusive NHL video clip service
- December 2005 - Bell announced nationwide availability of full track mobile music download service, allowing browsing, reviewing, downloading and sharing music
- November 2005 - Telus launched EV-DO 3G upgrade
- October 2005 - Bell launched EV-DO 3G upgrade
- September 2005 - Rogers announced channel line up on Rogers Mobile TV platform providing real time access to live TV programming, news, music videos etc.
- August 2005 - Bell announced availability of MSN Messenger over mobile devices
- May 2005 - Rogers announced mobile music experience with MP3 capabilities, mobile downloads of full songs etc.
- April 2005 - Rogers is first carrier in Canada to provide real-time access to live television programming in partnership with MobiTV
- June 2004 - Rogers completed EDGE upgrade
- 2003 – Rogers trials EDGE capability

In fact, Canada is ahead of the U.S. in rolling out many 3G services. According to QSI Consulting, “Entertainment and multimedia services delivered via mobile wireless handsets is an area where Canada appears to be leading the US. For instance, video calling is available in Canada but not in the US, as is the commercial availability of full-length movies.”<sup>48</sup> As the following table shows “Canada leads the US in terms of next-generation services/features roll-out, and at worst, is on par with the US in this regard.”<sup>49</sup>

**Table. Entertainment and Multimedia Product Offerings by Carrier\***

Services & Features	Canada			USA			
	Bell Mobility	Rogers Wireless	TELUS Mobility	AT&T	Verizon Wireless	Sprint	T-Mobile
Full-Length Movies							
Real-Time TV							
Download Full-Length Songs							
Streaming Radio							
Video Calling							
Text Messaging							
Picture Messaging							
Video Messaging							
International Messaging							
Instant Messaging							
Download & Play Games**							
Interactive Games/Multiplayer							
Download video clips							
Download Ring Tones							
Download Wallpaper/Screensavers							
Caller Ring Tunes***							
Mobile Web Access							
Voice SMS							

\* -- Color shading indicates service availability. Does not include offerings offered by MVNOs and regional wireless providers.  
 \*\* -- Both Bell Mobility and Verizon offer 3D games, according to their websites.  
 \*\*\* -- Caller Ring Tunes allows the caller to hear a song instead of the traditional ring. Each carrier has a unique name for this service.

Source: QSI Consulting Inc. *The State of Wireless Technologies in Canada*, May 2007 p. ix.

It is particularly odd that MTS Allstream criticized other carriers for 3G deployment. Within Manitoba, MTS Allstream has only just begun to offer 3G

<sup>48</sup> QSI Consulting Inc. *The State of Wireless Technologies in Canada*. (May, 2007), at page i.

<sup>49</sup> QSI Consulting Inc. *The State of Wireless Technologies in Canada*. (May, 2007), at page ix.

services, with the deployment of EVDO service in 2006. MTS Allstream's record for deploying next generation services lags behind the national carriers and it seems an unlikely agent for change in the future.

### ***E) Impact of New Entrants***

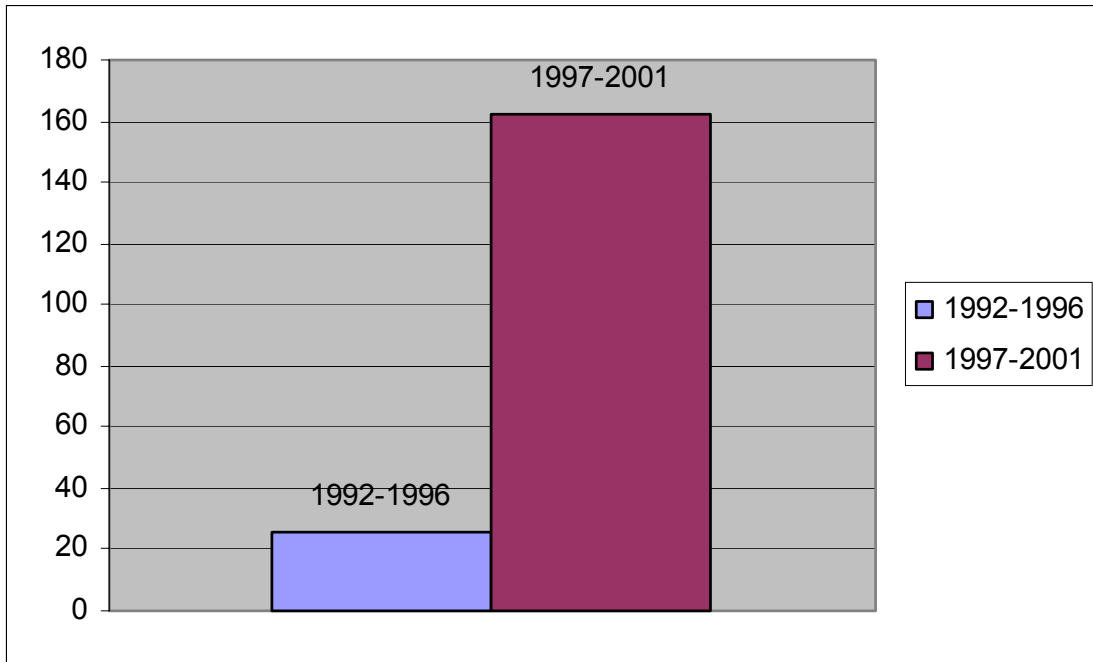
The potential impact of new entrants on the competitiveness of the Canadian wireless market has been exaggerated. In arguing for the need for a new entrant, several submissions have overstated the impact that the entry of Microcell and Clearnet had in 1996. This was most heavily exaggerated in the Lemay-Yates Associates (LYA) study prepared in support of the MTS Allstream submission. In figure 8, LYA attempted to demonstrate how the arrival of Microcell and Clearnet in 1996 led to a burst of subscriber growth in the period of 1997-2001.<sup>50</sup> It showed how the average number of new Canadian subscribers in the period of 1997-2001 far outnumbered the average from 1992-1996. As they claimed, "The introduction of PCS and launch of new carriers resulted in almost three times as many subscribers added per year. The role of the two new carriers in stimulating this market was significant".<sup>51</sup> International empirical evidence demonstrates otherwise. During the same periods analyzed in Figure 8 of the LYA report, growth across the world reflected the exact same trend experienced in Canada (see Chart below). In fact, the international growth rate was even higher. This would include nations at all different stages in the introduction of competition. Unless Microcell and Clearnet had a global influence, there were other, more powerful factors at work.

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<sup>50</sup> Lemay-Yates Associates Inc. Mobile demand and service pricing in Canada. (September 25, 2006), at page 19.

<sup>51</sup> Ibid., at page 18.

**Chart 1: Yearly Subscriber Growth before and after launch of  
Microcell and Clearnet in World (in millions) (ITU)**



Source: International Telecom Union, *Key Global Telecom Indicators for the World Telecommunication Service Sector, 2003*.

LYA's analysis was overly simplistic in ignoring these other influences. During this period, the wireless industry went through a revolution across the world, benefiting from:

- the availability of new spectrum;
- the introduction of PCS service;
- incredible advancements in technology and features;
- smaller, lighter and cheaper handsets;
- longer battery life;
- an abundance of available capital; and
- falling prices due to all of the above factors.

While added choice did contribute to the growth of the Canadian wireless industry, it was not a major driver of the growth that was experienced during this period.

In the main body of its submission, MTS Allstream continued to suggest that the entry of Clearnet and Microcell significantly influenced the Canadian wireless market. In referring to another graph titled “Canadian Mobile Timeline of Major Events” prepared by LYA, MTS Allstream stated, “This graph shows that subscriber penetration rates increased every time Industry Canada took steps to increase the level of competition in the market, such as when the Department authorized additional market entry in 1995 by granting PCS licenses to Clearnet and Microcell.”<sup>52</sup> Again, just because one event follows another does not mean that there is a causal relationship. As indicated above, the changes in mobile subscription growth were influenced by global forces – not by Microcell and Clearnet

It certainly cannot be argued that Microcell helped drive prices down in Canada. According to LYA themselves in a previous study they presented in 2003, Microcell were one of the most expensive wireless carriers. LYA stated, “Microcell’s post-pay ARPU results are either on par or exceed the results of Bell Canada in 2001 and 2002 while they came in slightly below in 2000. Even though its (sic) has been decreasing, Microcell’s pre-paid ARPU is always significantly higher than that achieved by the other carriers.”<sup>53</sup> New entrants have therefore not proven themselves to promote price competition, and their study results they now present in 2007 are not even consistent with their previous 2003 study.

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<sup>52</sup> MTS Allstream Submission, May 25, 2007, at page 12.

<sup>53</sup> Lemay-Yates Associates Inc. The Case for Four Mobile Telecom Operators in Canada. (2003), at page 16.

### **2.7.1 Spectrum Set-Aside**

**The Department seeks comments as to whether a certain amount of spectrum should be set aside for new entrants. Comments should include a precise description of those who should or should not be entitled to bid.**

**Comments are sought on the amount of spectrum that could potentially be set aside. Comments should include whether a single block should be set aside or if the set-aside could be broken up into 2 or more blocks.**

**Comments should stipulate how such provisions would be in the public interest, and provide supporting evidence or rationale.**

**Comments are sought on the implementation of the set-aside post auction and the duration of any conditions of licence specific to the set-aside that may affect the licence such as divisibility and transferability.**

## **1. The Need for Set Asides**

Open competitive processes work best. They are the most efficient, allocating scarce resources where they can be best used. The Consultation Paper recognized this fact when it noted that auctions have the capability to award spectrum in a transparent and economically efficient manner. For that reason, the auction should not set aside spectrum – but rather should make all blocks freely available to any participant.

Time and again, efforts by regulators around the world to shape and mold auction outcomes have resulted in failure. Establishing preferences, whether through set asides, spectrum caps or other forms of subsidies, distort the auction process. As a result, following most such attempts, spectrum was left dormant while new entrants went bankrupt. This hurt the government and taxpayers who received less revenue for the spectrum, wireless carriers whose capacity became constrained, and wireless consumers who bore the price.

Despite these precedents, many submissions continued to call for government interference in the AWS auction, specifically set asides. They argued that new entrants are unable to enter the wireless market through an open auction despite the many opportunities to do just that. They claimed they are unable to financially compete with the incumbent carriers while spending billions of dollars on other acquisitions. They pointed to experiences in other countries without providing the entire picture. Once again, several participants in the consultation process are attempting to rig the auction process to their economic advantage.

The following sections will explain why set asides are not required. They will demonstrate that many participants do not require Government largesse, as well as providing an accurate history of set aside use.

### ***A) Financial Capacity of New Entrants***

Many of the participants in the AWS consultation simply do not require government assistance. They include three of the largest telecommunications companies in Canada, representing billions of dollars in revenue and investment each year. Yet each of Quebecor, MTS Allstream and Shaw Communications asked for a set aside. Why should taxpayers take money out of their own pockets to help these large corporations?

Quebecor in particular does not require government aid to expand its business. It is one of the most successful media and communications companies in the country. It has successfully competed against the wireless incumbents in other markets; its success in capturing a significant share of landline customers from Bell is well noted. Quebecor also has the means to obtain the assets it requires to grow, having been one of the most active players in Canadian takeovers over the last 10 years. These acquisitions, in excess of \$10 billion, include:

- 2007 – Purchased Osprey Media’s Income Fund for \$517 million; purchased remaining Nurun shares for \$63.4 million
- 2004 – Purchased Toronto 1 for \$46 million
- 2003 – Purchased preferred shares held by Carlyle in Vidéotron Telecom for \$125 million
- 2000 – Purchased Vidéotron for \$5.4 billion
- 1999 – Purchased World Color Press for \$2.7 billion (U.S.)
- 1998 – Purchased (by subsidiary Donahue) Champion International for \$635 million
- 1997 – Purchased Sun Media for \$983 million

The most significant acquisition is the purchase of Vidéotron in 2000. In this instance, Quebecor went head to head with Rogers, an incumbent cable company with all the incumbent advantages including synergies, experience, et cetera. Yet Quebecor managed to outbid Rogers, in what was in effect an auction, to win Vidéotron for a price tag of \$5.4 billion. Quebecor still claims though, even after having just made another half billion dollar takeover three weeks ago, that it can not compete in the AWS auction without government financial assistance.

MTS Allstream also does not require any special treatment. It too has the means to make the necessary investment to expand its existing wireless service. Having broadened its landline business in 2003 with its \$1.8 billion acquisition of Allstream, MTS Allstream, as it is called now, has demonstrated its ability to expand its regional business across the entire country.

The current economic environment will facilitate any attempt by these companies to enter the AWS auction. The capital markets have been raising billions of dollars for telecommunications ventures. In fact, Bell Canada is currently at the centre of a possible \$30 - \$40 billion takeover. There is therefore no shortage of capital waiting to be invested in the wireless industry.

In particular, private equity firms have been very active in this sector. For example, Trio Capital has raised \$200 - \$400 million specifically to invest in telecommunications ventures. Formed by TPR co-author Andre Tremblay just months after the panel released its recommendations, Trio has already begun making wireless investments. Private equity firms are very eager to partner up with existing companies to invest in the dynamic wireless market.<sup>54</sup>

## ***B) Missed Opportunities***

It is not the role of Industry Canada to help companies rectify mistakes they have made in the past. Many of the companies who made submissions were either previously involved in the wireless industry or had the opportunity to participate. They, each for their own reasons, decided to forgo these possibilities. Now that the wireless market is profitable after two decades of losses, these companies want government assistance to re-enter the wireless market.

### *i. Previous Investments*

Quebecor, Shaw and MTS Allstream all previously held stakes in national wireless carriers. Quebecor and Shaw were both original shareholders in Microcell. Quebecor was even still a shareholder during the 2001 PCS auction. At the time however, the wireless industry was losing millions of dollars and prospects appeared grim. Both companies therefore abandoned their investment. At around the same time MTS Allstream held a 33% stake in Inukshuk, the national wireless broadband company. Prospects appeared bleak there as well and they too chose to abandon their investment. Now that the wireless sector is in the black, each of these companies want back in, but with government help this time.

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<sup>54</sup> Peter Hadekel. Ex-Microcell execs set up equity fund to invest in telecoms. Montreal Gazette (November 14, 2006).

## *ii. Previous Auctions*

Many submissions to the Consultation Paper argued that no new entrant has ever succeeded to enter the market by auction. Shaw claimed “No mobile wireless carrier has ever been required to enter the Canadian market by purchasing spectrum at auction.”<sup>55</sup> According to MTS Allstream, “none of the incumbent wireless operators had to participate in spectrum auctions in order to obtain their initial award of cellular and PCS spectrum.”<sup>56</sup> It further claimed that “The same is true for the award of PCS licences in 1995. Once again, none of the Big 3 had to participate in an auction in order to obtain one of the four PCS licences that were awarded at this time.”<sup>57</sup>

These portrayals of past Canadian spectrum auctions are misleading. To begin with, there have only been four spectrum auctions in Canada, and only one, the 2001 PCS auction, was for mobile spectrum. It is a stretch to use the results from one auction to then claim that no new entrant has ever entered the Canadian mobile market through an auction. In addition, there was plenty of opportunity for a new entrant to obtain spectrum in the 2001 PCS auction and commence service. Many companies just did not have the foresight to seize the opportunity.

The 2001 PCS auction attracted very little interest from potential wireless carriers. Only seven qualified bidders registered for the auction (with Bell forming an umbrella for itself, Aliant, MTS, and SaskTel). Only five bidders successfully won licenses. Microcell, which was partly owned by Quebecor at the time, never seriously contended, dropping out after only eight rounds (out of a total of 51 rounds). Sprint (under the name of 3050443 Nova Scotia Company) stayed in the bidding only a little while longer, dropping out itself after twenty-six rounds. These

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<sup>55</sup> Shaw Submission, May 25, 2007, at page 2.

<sup>56</sup> MTS Allstream Submission, May 25, 2007 at page 7.

<sup>57</sup> *Ibid.*, at page 7.

companies, and others that did not even bother to register, had an opportunity but failed to take advantage of it.

These opportunities were real. At the conclusion of the auction, 21 blocks of spectrum sold for no more than the opening bid. In fact, 3 blocks did not receive a bid until after round 14 of the auction. Furthermore, 9 blocks of spectrum remained unsold at the conclusion of the auction. Companies cannot now complain that they were frozen out of the auction when blocks of spectrum were sold at their opening price or did not sell at all.

It is notable that MTS Allstream, now asking for a spectrum set aside to ensure a new entry in the market, had only limited participation in this particular auction. It was satisfied to remain in association with Bell and stay within the confines of Manitoba. It therefore did not take advantage of the inexpensive blocks for sale. It could have perhaps expanded into the neighbouring regions of Saskatchewan and Northern Ontario where it could have had spectrum at the opening price. Instead it allowed the opportunity to pass.

Quebecor's absence is equally noticeable. The southern Quebec licences went for \$38.7 million or less while the Eastern Quebec licences went for the opening bid price of nine hundred thousand dollars. The Northern Quebec licences went un-purchased altogether. For \$40 million, Quebecor could have already become a regional carrier without government assistance.

The most disturbing element of all this criticism regarding the auction process is that all of the submissions chose to ignore the fact that a new entrant did successfully acquire spectrum in the 2001 PCS auction. W2N (now known as Wispra) purchased three blocks in the auction. Yet despite its purchases, Wispra itself claimed that an open auction prevents new entry, portraying its success in 2001 as a failure. In its comments, Wispra Inc. claimed that "By their sheer size and position the incumbents are ideally positioned to bar entry of any new entrant

by bidding up the price of spectrum licenses, whether or not they need the spectrum to provide services, as they have done before.”<sup>58</sup> They argued that without a set aside for a new entrant the incumbents will continue bidding to ensure that no new carrier enters the market, as was the case in the 2001 PCS auction. Wispra believes that because there was no set-aside in that auction, their bid of over \$300M for 10 MHz in the Toronto area was outbid in order to deny them access to the wireless market.

This is simply untrue. The incumbents did not stop bidding when W2N withdrew. In fact, the bidding for the Southern Ontario blocks continued for another ten rounds. If all the incumbents wished to accomplish was to prevent W2N’s entry, they would have stopped bidding once W2N left. Instead, in competing with one another, the incumbents continued bidding, costing themselves tens of millions of dollars. The carriers were simply competing for a scarce resource, prepared to bid against any party, new or established. W2N failed to obtain the block as it simply was not willing to pay the fair market price.

In addition, if the incumbents truly wanted to block W2N from the wireless market, they would have barred its entry everywhere. W2N did however purchase three blocks of spectrum in the 2001 PCS auction. In particular, the spectrum purchased in Alberta and British Columbia gave the company the opportunity to build a network in these provinces and become a regional carrier in Western Canada. Rather than launch, W2N chose to flip its spectrum after warehousing it for almost five years.

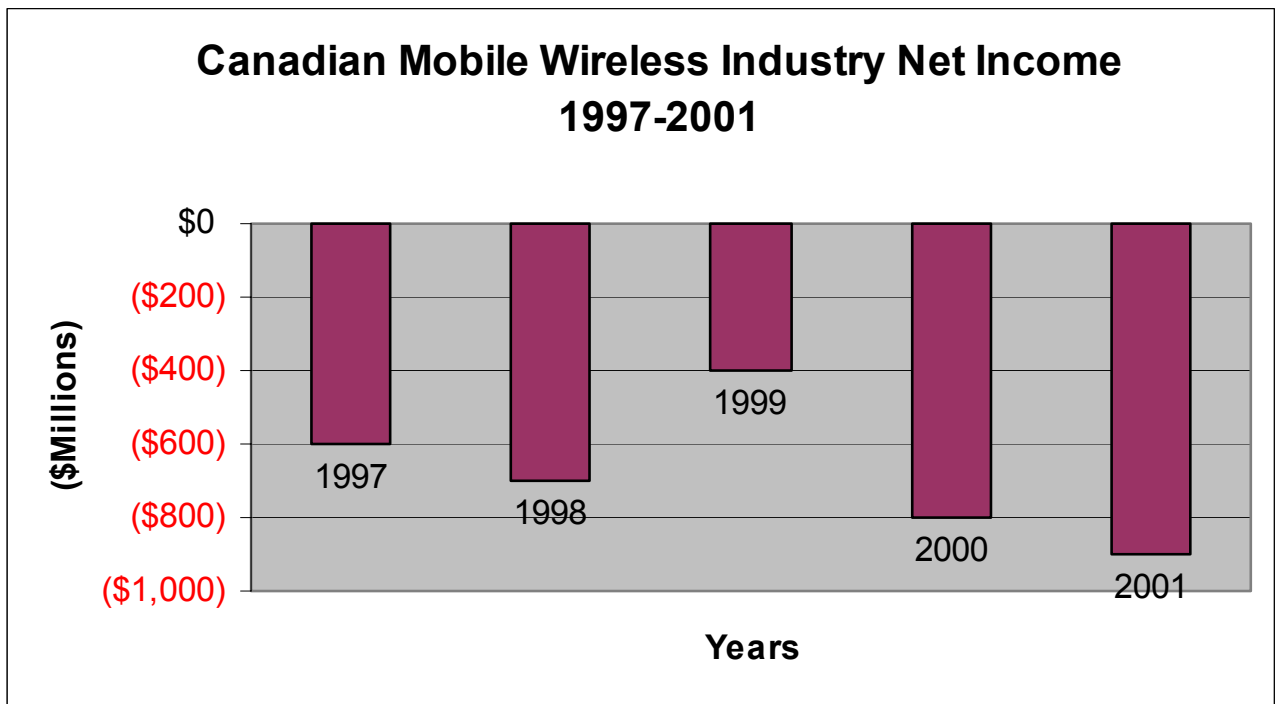
Finally, the two 2.3/3.5 GHz fixed wireless auctions also demonstrated that the incumbent wireless companies have never monopolized spectrum auctions in Canada. In fact when the first auction for this spectrum (held in February 2004) concluded, only 392 of the 849 available licenses were purchased, 457 blocks were left unsold and another 151 blocks went for the opening bids. A year later,

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<sup>58</sup> Rogers Submission, May 25, 2007, at page 2.

after the second auction, 7 blocks still remained unsold. More telling, a total of 32 companies successfully acquired spectrum. Barrett Xplore, who did not participate, had the opportunity to obtain the fixed wireless spectrum it required – yet chose not to. It cannot now complain that this was because of the incumbent carriers.

It should be noted that when wireless business prospects were poor, all these critics chose not to participate in the auction. In 2001, the wireless carriers were collectively losing approximately \$1 billion . Now that the wireless industry is successful after twenty years of losses, companies that could have obtained spectrum in open auctions in the past but chose not to participate, are looking to obtain spectrum through “government subsidies” and “special treatment”.



Source: Wall Communications A study on the Wireless Environment in Canada (Sept. 2006) p. 8

### *iii. Post Auction Opportunities*

Even after the 2001 PCS auction was completed, there were still plenty of opportunities to obtain spectrum. Parties either managed to obtain spectrum that remained un-purchased during the auction or through subsequent commercial transactions. A list of these transactions is included as Appendix 2. As can be seen, many parties, including new entrants, managed to obtain spectrum. For example, Harmony Mobile Networks (a party to this consultation process) has successfully acquired PCS spectrum licences in Ontario, Quebec, Yukon, Northwest Territories and Nunavut.

### *iv. Acquisition Opportunities*

Quebecor, MTS Allstream and Shaw all had the opportunity to acquire Microcell. After 2000, Microcell went through a series of financial difficulties, including a re-organization. Microcell actively searched for new capital and investors but no-one responded to their calls. In the end, Rogers purchased Microcell for \$1.4 billion.

This was a wasted opportunity. Both Quebecor and MTS were making acquisitions even larger than \$1.4 billion around this time. In fact, before the spectrum cap was lifted, Microcell could probably have been purchased for significantly less than what Rogers ultimately paid. Instead Quebecor, with its intimate knowledge of the company, decided to pass. MTS decided to invest in Allstream. As Mark Evans reported, "For all the talk about how Manitoba Telecom and Quebecor want to purchase spectrum so they create Canada's fourth wireless carrier is (sic) the reality that Manitoba Tel could have already been the fourth wireless carrier if ex-CEO Bill Fraser hasn't (sic) made a major

strategic mistake three years ago.”<sup>59</sup> He later added, “If he (Fraser) had spent the \$1.8 billion to acquire Microcell rather than Allstream, Manitoba Tel’s competitive position and the wireless market would have been completely different. Three years later, Manitoba Tel is trying to get back in the game – having missed out on a three year period of huge growth and profits.”<sup>60</sup> Having both passed on the opportunity to purchase Microcell, an operating company with 30 MHz of national spectrum, a nationally recognized brand, an established network and 10%-15% market share for a very affordable price, it is no wonder Quebecor and MTS Allstream are seeking help. It is equally clear that there is no legitimate reason why the Government should intervene to assist them now.

## **2. Government and Agency Positions**

It is not insignificant that those critical of the state of competition in the Canadian wireless industry failed to recognize the extensive decisions and pronouncements of the Government arguing that Canada does indeed have a “vibrant wireless sector” that is “robustly competitive”. Furthermore, these parties also failed to recognize the direction of the Government in moving towards more market-driven policies and regulation.

As Rogers noted in our comments, when assessing the competitiveness of the Canadian wireless market, the Department has the benefit of a recent in-depth analysis of the market by the Competition Bureau, as well as a number of pronouncements on the competitiveness of the market by the CRTC.<sup>61</sup>

As Bell noted in its comments “In recent years, the Government of Canada, the CRTC and the Competition Bureau have all had opportunities to review and assess the state of competition in the wireless industry. Each time the conclusion

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<sup>59</sup> Mark Evans. Manitoba Tel’s New Wireless Dream. (May 26, 2007), at <http://markevanstech.com/2007/05/26/manitoba-tels-new-wireless-dreams>.

<sup>60</sup> Ibid., <http://markevanstech.com/2007/05/26/manitoba-tels-new-wireless-dreams>

<sup>61</sup> Rogers Submission, May 25, 2007 at page 9.

has been that the wireless market is a highly competitive one.”<sup>62</sup> Telus’ comments also supported the view that there is a healthy level of competition in the Canadian wireless industry, and also pointed to the views of the Government in this regard when it stated, “both government agencies that have statutory responsibility in these matters and that have specifically examined the wireless market have concluded that the industry is highly competitive.”<sup>63</sup>

As pointed out by the Rogers, Bell and Telus comments, the Government of Canada has also determined that three competing carriers are sufficient for purposes of regulatory forbearance. More recently, in the 2007 Spectrum Policy Framework for Canada (the “Spectrum Policy Framework”), Industry Canada expressed the opinion that Canada has “a very vibrant wireless sector that is growing at twice the rate of the Canadian economy and significantly contributing to Canadian jobs and prosperity.”<sup>64</sup>

As Rogers’ comments also noted, in the past the Government has stated its preference to rely on market forces. This was evident when in 2004 the Minister of Industry rescinded the spectrum cap in an effort to “foster increased reliance on market forces for the provision of telecommunications services”. This was reinforced more recently in the Spectrum Policy Framework recognizing “the importance of relying on market forces in spectrum management, to the maximum extent feasible.”<sup>65</sup>

### **3. Set Asides in Canada**

There have never been any set asides in Canada, nor has any party received a leg up or other advantage, as suggested by several submissions. In 1984 and 1995, the Government used comparative licensing processes instead of auctions

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<sup>62</sup> Bell submission, May 25, 2007, at page 27

<sup>63</sup> Telus submission, May 25, 2007 at page 31

<sup>64</sup> Industry Canada. Spectrum Policy Framework for Canada (June 2007), at page 1.

<sup>65</sup> Ibid., page 8.

for new parties. These however were still competitive processes in which interested parties contested for the spectrum. They cannot be characterized as a subsidy or benefit.

An auction during these periods would have made no economic sense. In 1984, there was no guarantee that the wireless industry would be successful. Even by 1995, the industry was still bleeding billions of dollars in losses and capital expenditures. Due to the risk and uncertainty, even if an auction had occurred, it would have generated little revenue for the government. A beauty contest was therefore the best policy for that time. It should be noted that using beauty contests did not mean that the wireless carriers received their spectrum for free. Far from it, they were required to pay annual licence fees totaling over a billion dollars to date. They also had specific rollout requirements.

In the current wireless environment, auctions are the only possible process. With nearly twenty million subscribers and strong growth, all the risk has been taken and the entrepreneurship been done. A set aside today would not be the same as the beauty contests from 20 years ago.

#### **4. History of Set Asides**

International experience in the use of set asides has been disastrous. Both in America and Europe, the wireless sectors continue to suffer from the failure of these attempts to artificially introduce new entrants. Instead of strong new competitors, each of these jurisdictions experienced bankruptcies, litigation and unused spectrum.

Yet many submissions pointed to these experiences as positive. Quebecor in particular suggested that these set asides were successful, attaching the LYA study supporting this claim. Quebecor stated, "A good example of the unfolding and of the results achieved in an auction with a set aside is provided by the

auction of 3G spectrum in the UK in 2000, which auction can be qualified as yielding a very positive outcome.”<sup>66</sup> Quebecor and LYA then both pointed to the United States, Sweden and Ireland as other positive examples of set asides and other measures used to introduce new entrants.

Unfortunately, these examples only provide part of the story. Quebecor and LYA pointed to a select group of countries, leaving out the poor experiences suffered in other nations. They also both ignored the fallout that followed in the U.S. and the other countries. The following will provide a more complete picture as to the consequences of the use of set asides and other new entrant measures abroad.

### **A) *The United Kingdom***

The U.K. experience was not positive. In 2000, the British regulator set aside 35 MHz of 3G spectrum for a new entrant. While new entrants were permitted to bid on all five blocks (A through E), only new entrants could bid on the A block. As a result, the Hong Kong conglomerate Hutchinson Whampoa (with Canadian partner Telesystem International Wireless at the time) was permitted to purchase the spectrum block at a significant discount, as illustrated in the graph below prepared by Crandall and Ingraham.<sup>67</sup>

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<sup>66</sup> Rogers Submission, May 25, 2007, at page 38.

<sup>67</sup> Robert W. Crandall and Allan T. Ingraham. *The Adverse Economic Effects of Spectrum Set-Aside* (May 24, 2007), at page 13.

## The Adverse Economic Effects of Spectrum Set-Asides

<b>Block</b>	<b>Winning Bidder</b>	<b>£ (billion)</b>	<b>£/MHz-Pop</b>	<b>£/Paired MHz-Pop</b>
A	TIW (Hutchinson)	4.4	2.1	4.9
B	Vodafone	5.9	3.3	6.7
C	BT	4.0	2.7	6.7
D	One2One	4.0	2.7	6.7
E	Orange	4.1	2.7	6.8

*Source: Robert W. Crandall and Allan T. Ingraham The Adverse Economic Effects of Spectrum Set-Aside. (May 24, 2007), p.13*

Hutchinson Whampoa is one of the world's leading communications firms. Even in 2000 it was reporting \$4.8 billion dollars in profits. Why the English taxpayer subsidized this corporation, controlled by Li Kai-Shing the ninth richest man in the world, remains unclear.

The relevance of the United Kingdom in 2000 as an example for Canada in 2007 must also be questioned. The year 2000 was the peak of the technology bubble. The amounts companies were willing to pay for high technology defied reason. The amounts wireless carriers were willing to pay per MHz/pop dropped dramatically in the years that followed. It is very unlikely that an auction today would generate the interest and revenues seen in the 2000 U.K. auction.

Secondly, it is not possible to compare an auction without foreign ownership restrictions with an auction with restrictions on foreign ownership. The U.K. auction was able to attract nine foreign firms to ensure the block that was set aside was subject to competitive bidding. With only domestic firms permitted to participate, a set aside in Canada would result in an even larger subsidy than experienced in the U.K.

Thirdly, at the time of the 3G auction, spectrum in the U.K. was licensed for specific uses. A carrier could only offer 3G services if they held 3G spectrum. Carriers therefore had to obtain the new spectrum no matter how much spectrum they already held. This lack of flexibility drove up the price. The United Kingdom has subsequently amended its policy to license spectrum on a technologically neutral basis wherever possible, similar to the regime in Canada.

Fourthly, it should be noted that wireless prices are much higher in the U.K. than they are in Canada. This makes the U.K. an unlikely model for Canadian policymakers to emulate.<sup>68</sup>

Finally, the U.K. regulator Ofcom has moved away from set asides. It has announced plans for a sequence of major auctions through the latter part of 2007, including spectrum in the 3G expansion band. No proposals have been made to set aside spectrum for entrants nor for spectrum caps that would take into account the bidder's existing holdings in other bands

## ***B) The United States***

In 1996, the United States decided to set aside the C Block of the PCS spectrum for new entrants. These new entrants were also provided subsidies such as installment payment plans. The result was an unmitigated disaster. What followed was years of bankruptcies, litigation and unused spectrum. As explained by Michael Gallagher, the former U.S. Assistant Secretary of Commerce for Communication and Information, "despite the best intentions, this risky attempt by government to manipulate the market ended up exacting a huge toll on spectrum constrained wireless carriers, wireless hungry Americans and the U.S. Treasury."<sup>69</sup>

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<sup>68</sup> Ibid., at pages 12-16.

<sup>69</sup> Michael D. Gallagher. "Canada at the crossroads: U.S. experience shows right path for wireless." Hill Times (June 4, 2007).

None of the FCC's goals were accomplished. Billions of dollars in auction fees were wiped out in a series of bankruptcy proceedings. Little new competition was created as several new entrants went out of business; others were unable to deploy their networks, while others were acquired by larger companies. In fact, the only significant carrier remaining produced by the C Block set aside is MetroPCS and it too had to suffer through bankruptcy. At the same time, during the years that followed the auction, large scale consolidation swept the American wireless industry, further undoing the attempt to create more competition. A sample of this merger activity is included in Appendix 3. In the end, market forces simply overwhelmed government interference.

As a result of this failure, the FCC has abandoned set asides. It is no accident that no such measures were used in the 2006 AWS auction. Instead any party interested in obtaining spectrum had to follow the same rules as every other interested party. Interestingly enough, despite no set aside, a significant new entrant did successfully obtain large blocks of spectrum. SpectrumCo, a consortium of cable companies (with a minor interest held by Nextel Sprint) came away from the auction as a new presence in the American wireless market. While its success remains to be seen, it does serve as a model for Canadian cable and telecom companies interested in following suit.<sup>70</sup>

### **C) Sweden**

Sweden's 2000 set aside also does not provide a model for Canada. First of all, it was not an auction but a beauty contest. The Swedish regulatory authority awarded spectrum blocks to two new entrants, Hutchinson and Orange. Canada had already used this method itself in 1995, with the award of licences to Clearnet and Microcell. Neither Canadian company was able to survive independently. As it turns out, the Swedish new entrants did not fare much

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<sup>70</sup> Crandall and Ingram. Adverse Economic Effects, at pages 5-9.

better. As LYA concedes, Orange failed to deploy any service and returned the spectrum back to the government – not the outcome the regulator was seeking.

The next auction in Sweden provides a good argument against set asides. In 2005, a block of 450 MHz spectrum was auctioned off and a new entrant, Nordisk Mobiltelefon, won. They accomplished this in a free and fair contest with the existing wireless carriers. This demonstrates that well organized companies with strong business plans and resources can effectively contest open and fair spectrum auctions competing against incumbent carriers.<sup>71</sup>

#### ***D) Ireland***

Like Sweden, Ireland used beauty contests to award spectrum, not an auction. Like Sweden, two new entrants were awarded spectrum, Hutchinson and Smart Mobile. Like Sweden, one, Smart Mobile, failed to deploy and had their spectrum revoked. Like the United States, the matter is before the courts.<sup>72</sup>

#### ***E) Austria***

Austria held an open auction in 2000, in which two new entrants won spectrum Hutchinson Whampoa (Hutchinson 3G) and Telefonica (3G Mobile). Telefonica was forced to withdraw from the market and sold its spectrum to an incumbent (T-mobile) in 2003. Hutchinson remains in business. While no set aside was used, Austria is another instance of new entrants acquiring spectrum in an open auction without government assistance.<sup>73</sup>

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<sup>71</sup> Lemay-Yates Associates Inc. A Discussion of Spectrum Licence Conditions and the Impact on New Entrants (October 2006), at pages 45-47.

<sup>72</sup> Ibid., at pages 42-45.

<sup>73</sup> Crandall and Ingraham. Adverse Economic Effects, at page 18.

## ***F) Switzerland***

The Swiss auction in 2000 effectively created a set aside. Once again Telefonica was the winning bid. Once again it failed to deploy its network. As a result, the licence was rescinded in 2006, and no new competition was created.<sup>74</sup>

## ***G) Germany***

Germany is another cautionary tale. The German AWS auction of 2000 did not set aside spectrum. Despite this, two well financed foreign consortiums (MobilCom and Group 3G) managed to acquire blocks. However, in the face of significant competition already present in Germany, both consortiums abandoned their investments and returned their spectrum to the Government.<sup>75</sup>

All these experiences in other countries contain an important lesson to regulators. In spite of their best efforts, it is not possible to force competition. As noted by Crandall and Ingraham, these auctions “should serve as a warning to regulators that subsidizing or attempting to facilitate entry into the wireless industry runs the risk of allocating spectrum in an inefficient manner. As a result, the spectrum would go unused by the firm most qualified to deploy it.”<sup>76</sup> The market will only bear so many participants and artificially introducing new ones will be a temporary measure at best. Canada already witnessed this phenomenon after the introduction of Microcell and Clearnet in 1995. Even well financed groups were unable to remain in business. The only company to survive in the above European examples was Hutchinson and it has invested tens of billions of dollars and is still waiting for a return on this investment. As the smallest carrier in most of these markets, it is unclear when or if that will occur.

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<sup>74</sup> Ibid., at pages 18 – 19.

<sup>75</sup> Ibid., at pages 16 – 18.

<sup>76</sup> Ibid., at page 19.

Set asides are therefore poor public policy, providing little chance of sustainable competition.

## **5. Definition of New Entrant**

In the context of comments on whether spectrum should be set aside for “new entrants”, the Department invited parties to provide a description of those who should or should not be entitled to bid in the spectrum auction. Perhaps the most disingenuous proposal is that advanced by MTS Allstream. In an attempt to overcome the transparent fact that it is a monopoly-affiliated incumbent mobile service provider that has dominated the wireless market in Manitoba for the past 20 years, MTS Allstream proposed the elimination of the word “new”, thus preferring the use of the term “entrant”.<sup>77</sup>

To by-pass the inconvenient fact that it already holds cellular and PCS spectrum licences which it has used to build and maintain a 70% market share in Manitoba, MTS Allstream tied its “entrant” definition to national licences and national market share. MTS Allstream proposed that “entrants” are those bidders that do not hold national spectrum or have a national wireless footprint, and that have less than 10% national market share.<sup>78</sup> Presumably, this means that in its home operating territory, MTS Allstream expects to be permitted to bid for “new entrant” set-aside spectrum, if it is made available.

Rogers submits that this position should be rejected.

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<sup>77</sup> MTS Allstream Submission, May 25, 2007, at page 20.

<sup>78</sup> Ibid, at page 36.

## **2.7.2 Spectrum Aggregation Limit on Auctioned Spectrum**

**The Department seeks comments as to whether an auction spectrum aggregation limit should be placed on the amount of spectrum that can be acquired by a single wireless service provider and its affiliates. Comments should include the amount of spectrum for the auction spectrum aggregation limit, to which bands it should apply and the duration.**

Spectrum aggregation limits, or caps, constitute another form of regulatory intervention. Like set asides, they interfere with the efficient allocation of resources. Caps reduce the number of bidders, cause carriers to suffer spectrum constraints and reduce available revenues for the Government of Canada.

Yet many submissions requested this form of market interference. They seek to prevent incumbent carriers from purchasing spectrum, leaving more for them at discounted prices. They argued that limiting the incumbents' access to spectrum is the best way to level the playing field between the incumbents and new entrants. For example, Cogeco claimed that such a mechanism would "effectively balance the interests of the incumbent mobile wireless service carriers in acquiring additional spectrum to continue the deployment of advanced mobile wireless services" and ensure "sufficient spectrum is available for other providers, notably new entrants or potential regional players."<sup>79</sup> Eastlink claimed that limiting the incumbent's access to spectrum is the only means to "allow new entrants sufficient capacity to offer a full range of services."<sup>80</sup>

A more worrisome and dubious proposal is suggested by SaskTel. It asked for "an auction-specific spectrum cap in order to maintain a level playing field for

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<sup>79</sup> Cogeco Cable Inc. Submission, May 25, 2007, at para 33.

<sup>80</sup> Eastlink Submission, May 25, 2007, at para 21.

established service providers and new entrants.”<sup>81</sup> This is to take the form of both a spectrum aggregation limit of 60 MHz (AWS and PCS combined) and an auction cap of 30 MHz. With no explanation or justification, SaskTel has conveniently excluded cellular spectrum from its proposed spectrum aggregation limit calculation.

SaskTel’s proposal for a cap is blatantly self-serving and anti-competitive. Its purpose is to penalize its nearest competitor in the province. SaskTel dominates Saskatchewan with an 83% market share, Rogers and Telus follow with 15.7% and 4.0% respectively. By suggesting a spectrum and auction cap SaskTel is effectively barring Rogers from the auction, ensuring its only real competitor in the province cannot participate.

Rogers firmly believes that a cap is unnecessary. Industry Canada already considered the issue of caps in 2004, when it decided to rescind the spectrum cap because of the “maturity of the market” and the “variety of service options” available to Canadian cell phone users. As Bell Canada pointed out correctly, the “Canadian wireless market is now a mature market and that the need for spectrum caps is less relevant than in the early days of the industry“ and as more and more spectrum becomes available arguments to oversee spectrum concentration become “even weaker today than they were in the history of the industry.”<sup>82</sup>

Furthermore, it is erroneous to believe that incumbents would buy up the entire available spectrum, regardless of whether it is needed or not, simply to “encourage hoarding of spectrum particularly for the purposes of frustrating competition”<sup>83</sup> as alleged by Toronto Hydro Telecom. From this perspective a spectrum aggregation limit is unnecessary and all carriers should have an equal opportunity to expand their networks without the Government arbitrarily placing

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<sup>81</sup> SaskTel Submission, May 25, 2007, at page 11.

<sup>82</sup> Bell Canada Submission, May 25, 2007, at page 16.

<sup>83</sup> Toronto Hydro Telecom Submission, May 25, 2007, at page 22.

limits or pronouncing on what is the necessary amount of spectrum to rollout business plans in the future.

Making matters worse, many submissions suggested if the Government does utilize a spectrum aggregation limit it should continue for several years after the auction. For example, in its comments, Quebecor suggested a five year period to “take into account the time required for any potential re-auction of leftover AWS or other spectrum blocks as well as provide sufficient time for new entrants to deploy their networks.”<sup>84</sup> In Rogers’ view, if companies such as Quebecor favour fair competition and a level-playing field, it is illogical to then suggest in the event of an aggregation limit this should remain in effect for years. Rogers cannot support an auction aggregation limit for the reasons outlined above, nor should it continue past the auction itself.

## **1. Incumbents Require AWS Spectrum for Advanced Services**

As Rogers noted in its comments, the AWS spectrum auction is a rare opportunity for incumbent carriers to acquire the additional capacity that they will need for the next several years. Additional capacity will be required to satisfy rapid customer growth and continued implementation of new advanced wireless broadband Internet, video and multimedia services which require dramatically more spectrum than two-way voice and basic data services. As Rogers noted in its comments, a broadband data session running over Rogers’ HSDPA network can use 300 times more data than voice and a typical video session can use between 30 and 50 times the capacity of voice and other applications.<sup>85</sup>

Incumbent carriers must also remain competitive by having access to the technology and handset ecosystem that is already being developed specifically for AWS spectrum. Denying the incumbents’ access to this spectrum and ecosystem will unfairly handicap them in the highly competitive market in which they operate.

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<sup>84</sup> Quebecor Submission, May 25, 2007, at page 51).

<sup>85</sup> Rogers Submission, May 25, 2007, at page 36.

Limiting the incumbents to their existing spectrum holdings would force them to deploy hundreds if not thousands of new base stations and associated antenna structures in order to squeeze additional diminishing incremental capacity from their current spectrum assignments. These massive capital outlays would unnecessarily increase the cost of wireless services and would undoubtedly delay the introduction of new advanced services, neither of which would be in the public interest. As recognized by the Department in the Consultation Paper, and by the vast majority of parties in their comments, the installation of radiocommunication towers is becoming increasingly difficult and time-consuming. Denying incumbent carriers the additional spectrum that they need would only exacerbate this problem.

Preventing the incumbents from obtaining further spectrum will also adversely affect the quality of wireless services in Canada. Rogers, by using all its spectrum, is able to provide one of the highest quality networks in the world. By preventing Rogers from obtaining further spectrum, just as broadband services grow and strain capacity, Industry Canada would force diminished quality of service upon Rogers' subscribers.

The fact that incumbents legitimately require additional spectrum in order to introduce next generation services has been noted by a number of parties. For example, Bell noted that the licensing of additional PCS spectrum to the incumbents in 2001 "provided the necessary bandwidth to commence deployment of high-speed 3G wireless service in 2003."<sup>86</sup> Bell also stated that it needs "to be able to offer new services that will be delivered through AWS spectrum. By gaining access to the AWS spectrum, Bell can ensure Canadians continue to receive leading edge services and products."<sup>87</sup>

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<sup>86</sup> Bell Submission, May 25, 2007, at page 10.

<sup>87</sup> Ibid, at page 12.

SaskTel has stated that “[t]he trend towards new and innovative services such as fourth generation cellular, multimedia and broadband Internet services requires that SaskTel acquire additional spectrum in order to fully meet the needs of our customers.”<sup>88</sup>

For its part, Telus stated the following in this regard:

Any limitation in our opportunity to acquire spectrum (relative to other parties) would unjustly prejudice our ability to serve our current customers and those we hope to serve in the future.”<sup>89</sup>

“AWS service applications include cellular telephony, data, multimedia, and Internet Protocol (IP-based applications and broadband access, which may use 3G cellular and other advanced technologies. As discussed above under innovation, Telus has already launched EVDO and now EVDO Rev A 3G-based services but Telus needs more spectrum to offer an even faster generation of advanced mobile services including 4G. The purpose of the auction, after all, is to ensure that there is available network capacity to manage broadband and video demand. As the Internet has demonstrated, there is never sufficient capacity to meet demand. Wireless is no different.”<sup>90</sup>

As noted already, some parties suggested that the incumbent licensees have adequate spectrum for their current and future needs.

For example, MTS Allstream admitted that “it is not possible for MTS Allstream to know the full extent to which the Big 3 incumbents are actually using all of their extensive mobile wireless spectrum”, and yet claims that “there is no doubt that there is some unused spectrum with the Big 3’s existing licences” (Emphasis added).<sup>91</sup>

Mobilexchange made a number of wild and unsubstantiated claims that incumbent licensees “will not need more than 10 MHz of the AWS spectrum each

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<sup>88</sup> SaskTel Submission, May 25, 2007, at page 4.

<sup>89</sup> Telus Submission, May 25, 2007, at page 39.

<sup>90</sup> Ibid, at page 40.

<sup>91</sup> MTS Allstream Submission, May 25, 2007, at page 25.

for operational purposes” and that they “do not use spectrum efficiently”.<sup>92</sup>

Quebecor offered the following hollow assertion in this regard: “it can reasonably be assumed that Canadian carriers currently operate well below the total amount of spectrum they currently own.”<sup>93</sup>

Others made similar unfounded claims. For the record, Rogers uses all the spectrum in its network. None of that spectrum is unused. As mentioned earlier, this is one reason why Rogers is able to operate as Canada’s most reliable network, providing one of the highest quality wireless services in the world.

In response to the comments cited above, Rogers notes that many of these parties have no experience whatsoever in building and operating commercial mobile networks or in the development of advanced mobile services. They are simply not qualified to comment on the extent to which the incumbent licensees require additional spectrum. Their assertions should be viewed skeptically and should be disregarded by the Department.

In an attempt to compensate for their inability to speak authoritatively on this issue, these parties drew attention to the relative amount of mobile spectrum that is currently licensed to incumbent Canadian licensees and their U.S. counterparts. They claimed that the fact that some Canadian licensees hold more mobile spectrum in some areas than their U.S. counterparts, is conclusive proof that they do not require additional mobile spectrum for next generation services.

However, these parties have failed to understand or acknowledge that certain US carriers have been constrained and have been unable to implement new advanced services because they lacked the necessary capacity. Far from providing a benchmark for the amount of spectrum that is required to provide

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<sup>92</sup> Mobileexchange Submission, May 25, 2007, at page 3.

<sup>93</sup> Quebecor Submission, May 25, 2007, at page 43.

advanced mobile services, the spectrum holdings of these companies have been inadequate and the ability of some U.S. carriers to address the combined challenges of rapid customer growth and the introduction of broadband wireless multimedia services has been greatly impaired. These spectrum constraints have also reduced the quality of the service these providers can offer.

For example, in 2006, it was widely reported that T-Mobile acquired additional spectrum in the U.S. AWS auction so that it could introduce 3G services and remain competitive.<sup>94</sup> As one report noted:

The carrier is in desperate need of spectrum to be able to launch 3G service, something that all three of its national competitors have already done.<sup>95</sup> (Emphasis added)

Rather than proving that Canadian licensees have too much or enough mobile spectrum for their future needs, the mobile spectrum holdings of certain U.S. carriers is a clear warning against the notion of precluding or restricting incumbent Canadian licensees from obtaining additional mobile spectrum in the upcoming AWS auction. As Rogers outlined in its comments, incumbent licensees require additional spectrum to accommodate strong customer growth, and to provide new advanced wireless broadband Internet, video and multimedia services that consume dramatically greater bandwidth than is required for the provision of traditional two-way voice services. Inhibiting their ability to secure additional spectrum will simply delay the introduction of new services.

However, delaying the introduction of advanced services is not the only consequence of withholding spectrum from the incumbents. Citing Crandall and Ingraham, Bell noted that withholding additional spectrum capacity from

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<sup>94</sup> QSI Consulting. The State of Wireless Technologies in Canada, at page 17.

<sup>95</sup> T-Mobile USA makes presence known in AWS auction, Mobile Tracker, August 9, 2006.

incumbent U.S. carriers in the 1996 PCS auction “increased the cost of wireless services and harmed the quality of those services”.<sup>96</sup>

Rogers urges the Department to permit incumbent licensees to secure the AWS spectrum that they require in order to implement the next generation of services.

### **3.0 Mandated Roaming**

**The Department invites comments on mandating incumbent mobile wireless operators to offer roaming services - to both competing and non-competing Canadian carriers - to foster the development of competitive wireless communication services.**

In the Consultation Paper, the Department invited comments regarding whether the lack of mandated roaming is a barrier to entry.

Rogers notes that in its comments the Bureau highlighted the fact that mandated roaming can be counterproductive to the objective of facilities-based competition in the wireless market:

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.<sup>97</sup>

Rogers agrees with the Bureau that mandated roaming would undermine the objective of facilities-based competition. Rogers also agrees that it could encourage new entrants to forego investments in high cost areas, where competitive alternatives are less than in more profitable areas.

<sup>96</sup> Bell Submission, May 25, 2007, at page 11.

<sup>97</sup> Competition Bureau Comments, at page 19.

Rogers believes that it is also significant that the Bureau stated that roaming should not be mandated if an incumbent does not have downstream market power:

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.<sup>98</sup>

As Rogers and a number of other parties noted in their comments, there are three facilities-based, national wireless providers operating in most markets in Canada. In some markets, there is a minimum of one national and one regional facilities-based wireless carrier. Since Canadian wireless customers are both able, and willing, to switch to alternative wireless providers in virtually every market in Canada, there is no incumbent wireless company with downstream market power. Consequently, as the Competition Bureau outlined, roaming should not be mandated.

As outlined in its comments, Rogers believes that the lack of mandated roaming is not a barrier to entry and that a roaming mandate would distort and harm an already fiercely competitive market. Prospective entrants will be free to bid for spectrum licences in the upcoming auction in accordance with their business plans. Whether or not mandated roaming exists does not affect their ability to enter the wireless market by acquiring a spectrum licence and building a wireless network.

For its part, MTS Allstream claimed that the lack of seamless digital roaming is a “formidable barrier to entry”, but it has failed to explain how the existence of this barrier has not prevented it from successfully entering and operating in the mobile market for the past 20 years.<sup>99</sup> As noted already, MTS Allstream has

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<sup>98</sup> Ibid.

<sup>99</sup> Ibid, at page 40.

garnered a 70% market share in Manitoba and it has done so in the absence of any mandated digital roaming requirement. It has managed to negotiate roaming arrangements with other carriers and has operated in this manner for more than 20 years without seeking regulatory relief.

Quebecor claimed that “[t]o mobile subscribers, roaming is not considered a privilege but rather an integral basic characteristic of the service”.<sup>100</sup> Rogers disagrees. Rogers’ customers have never had to roam onto the networks of its competitors because it has invested over \$7 billion to build a ubiquitous national network covering over 94% of the Canadian population. Other carriers, such as Thunder Bay Tel, SaskTel, MTS Allstream and others have negotiated roaming arrangements on commercial terms and have not had to rely on regulatory intervention to provide the roaming services that they currently offer their customers. It is noteworthy that all of these companies enjoy very high market shares in their operating territories despite the absence of mandated roaming.

Rogers notes that a number of parties asserted that mandated roaming is necessary to ensure the viability of new entrants. For example, Quebecor claimed that certain rules and conditions such as roaming are required “to make the business case of a new entrant viable”.<sup>101</sup> Similarly, Mipps asserted that “mandated roaming is essential for the success of any new entrant”.<sup>102</sup> The irony of these parties’ submissions is obvious. They made unsubstantiated allegations that the existing networks are technologically backward and then they insist that they want to use them. They argued that current prices are inflated, but then say that they cannot develop a viable business case without a subsidy from the incumbents. If the new entrants are correct that the current networks are not modern and that prices are too high, they can build a profitable business case by building a better network and charging lower prices without any assistance from existing providers. It is equally ironic that Quebecor complained that “MVNOs

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<sup>100</sup> Quebecor Submission, May 25, 2007, at page 53.

<sup>101</sup> Ibid, at page 3.

<sup>102</sup> Mipps Submission, May 25, 2007, at page 16.

cannot differentiate themselves in terms of coverage”, and yet it insisted on mandatory roaming so that its coverage area can be identical to an incumbent carrier’s coverage.<sup>103</sup>

Furthermore, as stated on page 22 of the Consultation Paper, the ongoing viability and success of new entrants is not the responsibility of the Department. This view has also been echoed by the Commissioner of Competition in a speech that she delivered on June 13, 2007. The Commissioner said that “whether a competitor succeeds or fails is not our concern...We will always maintain a stance of studied neutrality”.<sup>104</sup>

The Department should disregard the pleas of parties that have requested radical and artificial measures such as mandated roaming to prop them up and guarantee their ongoing viability.

Building facilities has always been time-consuming and expensive. However, the Department’s policies have required parties to make the huge investments necessary to construct those facilities. By regarding that construction as a “barrier to entry,” the Department would be turning its back on its very successful policy of encouraging facilities-based wireless competition. In its comments, Rogers demonstrated that mandatory roaming would be inconsistent with the objectives of fostering facilities-based competition and reliance on market forces to the maximum extent. Rogers also noted that mandatory roaming would unfairly penalize incumbent carriers who have invested billions of dollars to differentiate their services in a highly competitive market. Incumbent carriers have built extensive wireless networks at considerable risk, with no guaranteed rate of return. Indeed, they have yet to fully recover these investments. Mandated roaming would seriously weaken the case for any such investments going forward and would encourage the industry to move to a single supplier

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<sup>103</sup> Quebecor Submission, May 25, 2007, at page 7.

<sup>104</sup> Competition Bureau, Speaking Notes for Sheridan Scott Commissioner of Competition, June 13, 2007.

model outside of urban areas. This would ultimately result in less facilities-based competition – not more – and would homogenize the service options and price packages available to consumers and businesses in non-urban markets.

A number of parties noted that Canadian wireless carriers have entered into voluntary and mutually beneficial commercial roaming and resale arrangements absent any requirement to do so. If service providers want to avoid the risk and expense of building out their wireless networks, then they have the option of either negotiating roaming rights or becoming MVNOs or resellers, as many have already done.

For these reasons, Rogers continues to believe that mandated roaming is not required and we strongly urge the Department to refrain from imposing any such artificial distortion on this competitive and dynamic market.

Rogers notes that this “hands off” approach would be consistent with the approach used in other developed countries, including Australia<sup>105</sup> and Japan<sup>106</sup>, where roaming requirements have not been imposed. Regulators in these countries have preferred instead to leave this matter to commercial negotiations.

A more sensible approach to the issue of roaming would be to encourage new entrants to offer roaming to each other. Since it is the new entrants who are saying they need roaming rights, they should have every incentive to enter into mutually beneficial arrangements with each other. This would be of particular relevance to regional new entrants since it would help them to build out their networks by allowing them to amortize the cost of doing so over a larger base of customers (e.g. subscribers and visiting roamers) than would otherwise be possible, and it would provide them with the benefits arising from economies of scale. This is precisely what the independent telephone companies in Ontario

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<sup>105</sup> Mobile Services Review – Mobile Domestic Roaming Service, Australian Competition & Consumer Commission, December 2004, at page 57.

<sup>106</sup> 3G Mobile Policy: The Case of Japan, ITU, at page 29.

and Quebec did when they obtained mobile radio licences, and they did so without Government intervention.

## **1. Mandatory Resale**

Rogers notes that, apart from being an incumbent wireless licensee, MTS Allstream is also a national competitor in the wireline market and it has recently insisted that mandatory wholesale access must be provided in the wireline market on a perpetual basis. Despite MTS Allstream's well-known desire for mandatory wholesale access to monopoly network bottlenecks, it is still surprising that MTS Allstream claimed that mandatory resale should also be imposed in the wireless market, which has never been subject to monopoly control and has a minimum of three facilities-based competitors in any given market.

What is perhaps more disturbing is the fact that MTS Allstream pretended that "resale will also lead to increased build-out of mobile wireless facilities".<sup>107</sup> Rogers disagrees entirely. Mandatory resale of wireless services will have the opposite effect. It will discourage new entrants from building their own network facilities and, in doing so, it will foreclose the possibility that new and innovative services will be developed by competitors.

In any event, resale of wireless services is already provided on a voluntary basis, a fact recognized by the Department several years ago in its *PCS Spectrum Auction Policy (Amendments)*. In that policy, the Department observed "that since 1995, the PCS licensees have reached various commercial and operational arrangements on resale and access to services without the intervention of the Department" (Emphasis added).<sup>108</sup>

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<sup>107</sup> MTS Allstream Submission, May 25, 2007, at page 41.

<sup>108</sup> Industry Canada. Amendments and Supplements and Clarification Questions to the Policy and Licensing Procedures for the Auction of Additional Spectrum in the 2 GHz Frequency Range. (October 2000), at page 25.

Further, a number of parties have made reference to the fact that wireless carriers have voluntarily entered into resale and MVNO arrangements without any requirement to do so. Clearly, the wireless resale market in Canada is already functioning and continues to rapidly develop, and there is no reason to take the intrusive and harmful steps that MTS Allstream and others proposed.

To begin with, Virgin Mobile has launched its service, bringing its considerable marketing expertise to bear on the Canadian market. Vidéotron has also re-entered the market as an MVNO in Québec. Other smaller resellers, such as 7-Eleven, are also competing actively. This means that in many markets there are three facilities-based carriers and one or more MVNO/resellers competing for the business of Canadian consumers and businesses. As a result, there are more companies competing for subscribers than ever before. The following is a partial list of MVNOs and resellers:

<ul style="list-style-type: none"><li>▪ Solo Mobile</li><li>▪ amp'd Mobile</li><li>▪ Virgin Mobile</li><li>▪ PC Telecom</li><li>▪ Fido</li><li>▪ Sears Connect</li><li>▪ MBNA Wireless</li><li>▪ Simply Connect (Scotia Bank)</li></ul>	<ul style="list-style-type: none"><li>▪ Primus</li><li>▪ DCI Wireless</li><li>▪ Harmony Network</li><li>▪ Ensync</li><li>▪ Setaia</li><li>▪ Vidéotron</li><li>▪ Speak-Out Wireless (7-Eleven)</li><li>▪ Petrocan Mobility</li></ul>
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At the 2007 Telecom Summit, MVNO Virgin Mobile Canada president and CEO Andrew Black revealed the company is fast approaching the 500,000 subscriber mark. The company, which uses Bell Mobility's wireless network, surpassed the 400,000 mark just two years after launching in the first quarter of 2005, and the CEO told an audience of about 500 that the MVNO is on track to hit half a million subscribers.

Black credits the company's success to a unique approach to the market. Virgin Canada has a heavy focus on pre-paid voice, but sells wireless data services that its customers – primarily the younger generation – want, such as ringtones and text messaging. The MVNO's operating metrics speak volumes to its success: average revenue per user 50% above the industry's pre-paid average and churn below the national average.<sup>109</sup>

By comparison, Microcell Telecommunications (now part of Rogers Communications), and Clearnet Communications (acquired by Telus Corp. in 2000) took about three years to reach 500,000 subscribers.

## **2. Network Unbundling**

Mobilexchange suggested “that the Canadian market will be best served by introduction of “Equal Access Interconnection” to the network of the cellular, PCS, ESMR and future AWS carriers and that their products and services should be “Unbundled”.<sup>110</sup>

This is the third time that Mobilexchange (or its predecessor AIReach) has proposed unbundling wireless network components. Each of these proposals has coincided with Industry Canada's policy reviews associated with competitive mobile spectrum allocation and, in Rogers' view, constitutes regulatory gaming.

Essential facilities regimes have no place in markets characterized by effective facilities-based competition. They entail complex systems of on-going regulation which are cumbersome and costly to implement and maintain. They are entirely unwarranted in the current competitive environment and would be entirely inconsistent with CRTC policy and the Government's Policy Direction to the CRTC. Mobilexchange's predecessor has been told this by the regulators in the past – but persists in making its case for unbundling every time new mobile spectrum is licensed.

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<sup>109</sup> Perry Hoffman. Media Technology, Insight Virgin Canada nearing 500K subscriber count. Decima Reports, (June 13, 2007).

<sup>110</sup> Mobilexchange Submission, May 25, 2007, at page 3

The first time this matter was raised by AIReach was in 1995, when it applied to the CRTC for orders requiring the unbundling of the wireless network. This coincided with Industry Canada's competitive licensing process that eventually resulted in the selection of Clearnet and Microcell as successful applicants for 30 MHz each of 1.9 GHz spectrum.

The outcome of that proceeding was that the CRTC denied the application, and concluded in Order CRTC 98-1092 that unbundling was inappropriate given the competitiveness of the mobile wireless industry in Canada:

27. The Commission notes that it used the concept of essential facilities to provide for competitors' interconnection with the dominant wireline providers' networks to allow the evolution of facilities-based competition in the local and long distance wireline markets. As previously noted, the circumstances that exist in the wireline industry are different from those prevailing in the PCS and cellular markets. In particular, in contrast to the wireline market, facilities-based entry was the initial form of competition in the wireless market. The Commission considers that the cellular and PCS markets are sufficiently competitive such that it cannot be said that facilities are monopoly controlled or cannot be economically or technical duplicated. As a result, none of the wireless providers can be said to have dominant market power or to control bottleneck or essential facilities. Accordingly, the Commission considers that wireless networks are not essential facilities as suggested by certain parties.

The second instance where Mobilexchange raised this matter was in 2000, when Industry Canada was undertaking a review on the policy and licensing issues associated with the 2001 1.9 GHz spectrum auction. In this particular case, rather than raising the matter with CRTC where it had been denied in 1998, Mobilexchange submitted a letter to the Minister of Industry (John Manley), dated June 22, 2000. In that letter, Mobilexchange asked the Minister for a reconsideration of the Commission's decision and presented arguments in favour of unbundling. The Minister did not accede to this request – effectively rejecting the request for unbundling.

Now, in its submission of May 25, 2007, Mobilexchange has once again made the argument for unbundling in the context of the current AWS auction policy review. Clearly, the timing of these requests by Mobilexchange is not coincidental.

Rogers would note the following regarding Mobilexchange's requests;

- The essential facilities doctrine has no application to wireless. No party possesses market power and there are multiple facilities-based service providers.
- This request for regulatory intervention is inconsistent with the CRTC and Government policy for the wireless industry.
- This type of unbundling has never been ordered in any country in the world, including the U.S.
- This type of request has already been denied by the CRTC and the former Minister of Industry.
- Mobilexchange's proposal would result in detailed regulation of the mobile wireless market including endless arguments over the costs of network components, functionality and underlying services. This type of regulation is unjustified and is inconsistent with the type of facilities-based competition that has developed in the wireless mobile market. It is also inconsistent with Government's telecommunications policy and with the direction of the industry.

In conclusion, this is nothing more than a "back door" attempt to gain spectrum, for free, outside of the competitive licensing process. Mobilexchange has not even bothered to define what specific elements would be unbundled (and Rogers would note that most elements cannot be unbundled for technical reasons).

Under Mobilexchange's proposal, wireless carriers could be required to give up a substantial portion of their spectrum (paid for through auctions or licence fees), potentially leaving carriers with a shortage of spectrum necessitating a requirement to buy more in an auction. Existing carriers had to make significant financial commitments to roll out their new networks on a national basis and to commit a portion of their revenues to research and development activity. The current licence holders will be held to these commitments by Industry Canada. Mobilexchange should not be permitted to use an existing carrier's licensed spectrum to provide their own service on an unlicensed basis.

The answer for Mobilexchange is quite simple. They are at liberty to participate in the auction and pay the market price for spectrum, however, to date, they have failed to participate. They did not even bother to submit an application and business case, and apply for any spectrum in the 1995 Industry Canada licensing process for PCS spectrum. Nor did they participate in the 2001 auction.

Alternatively, Mobilexchange is at liberty to seek resale arrangements and become an MVNO, like Virgin Mobile has successfully done. Again, to Rogers' knowledge, it has also failed to take advantage of this opportunity.

In these circumstances, no credence should be given to Mobilexchange's request for network unbundling,

### **3. Tower Sharing**

As stated in Rogers' comments, tower sharing should be required where practical. To the extent that towers can be shared by competitors, it would make sense to do so, especially given the growing public sensitivity to the installation of these structures. Tower sharing will also help new entrants to expeditiously build out their networks within their licensed areas and would be less distorting than spectrum set asides, caps and mandated roaming.

Rogers notes that some parties to this consultation suggested that mandatory tower sharing will eliminate the need for new entrants to build any towers. On the contrary, as partners in the development of competitive wireless networks, new entrants should shoulder the burden of investing in, building and sharing new towers. Incumbent licensees must not be unfairly required to carry this burden alone. If the public interest would be served by the sharing of incumbent licensee towers where practical, then it would be equally served by the sharing of new entrant towers.

Shaw's suggestion that wireless carriers be required to file tariffs for tower sharing rates and terms would create a new layer of regulation and administration which is entirely unnecessary.<sup>111</sup> Incumbent carriers already share towers on the basis of commercially negotiated rates and terms. For the same reason, Cogeco's proposal that all carriers' tower rates be made to conform to the rates reflected in Telus' tariffs<sup>112</sup> should be disregarded. This is a competitive market that has already been deregulated. To move towards re-regulation in a highly competitive environment is entirely unnecessary and is inconsistent with the policy direction of the Government of Canada, the CRTC and the TPRP.

Shaw and Primus both alleged that incumbent wireless carrier antenna structures are "essential facilities" and that the rates to access these structures should be regulated as "essential services". The Department should disregard these claims. As noted above, the CRTC has previously found that "none of the wireless providers can be said to have dominant market power or to control

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<sup>111</sup> Shaw's Submission, May 25, 2007, at page 18.

<sup>112</sup> Cogeco's Submission, May 25, 2007, at page 7.

bottleneck or essential facilities. Accordingly, the Commission considers that wireless networks are not essential facilities”.<sup>113</sup>

The Department should also be skeptical of the fact that MTS Allstream is now insisting on mandatory tower sharing.<sup>114</sup> As an incumbent cellular and PCS licensee that is integrated with a monopoly telephone company serving the province of Manitoba, MTS Allstream has, until now, demonstrated little interest or cooperation in sharing its extensive tower sites with its competitors.

Some parties, such as Quebecor, included pictures of locations where multiple towers have been installed by the incumbent wireless carriers, suggesting that such instances are avoidable. As an incumbent carrier with over 20 years of experience in tower siting and sharing issues, Rogers knows first-hand that tower sharing is not practical in all circumstances.

Not all municipalities in Canada are supportive of the large and bulky towers that are required to serve multiple carriers, preferring instead the more streamlined towers that can only accommodate a single carrier. As Bell has noted, “some municipalities have expressed a preference for multiple low profile “pole-like” structures as opposed to a single but massive “Christmas Tree” installation hosting several carriers.”<sup>115</sup>

Clearly there is a need to balance the goal of tower sharing with municipal interests in limiting the proliferation of ugly towers, and the goal of operating high-quality, efficient networks. Rogers did not establish itself as the highest quality network provider in Canada by skimping on towers or on spectrum.

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<sup>113</sup> Telecom Order CRTC 98-1092. Applications Requesting Interconnection With The Telecommunications Networks Of The Federally Regulated Cellular and Personal Communications Services Providers and Related Issues. (November 3, 1998), at par. 27.

<sup>114</sup> MTS Allstream Submission, May 25, 2007, at pages 60-63.

<sup>115</sup> Bell Submission, May 25, 2007, at page 40.

However, Rogers repeats that it is in favour of tower sharing. The Department should state its expectation that all carriers will share towers, subject to technical issues being resolved, at commercial rates. Rogers considers the policy objective of facilities-based competition would be better served by encouraging tower sharing – rather than mandating roaming.

Tower sharing is an incentive for facilities construction and network expansion by making this important infrastructure available to new entrants. Tower construction is expensive and can slow down network expansion. By extending tower access to new entrants through a tower sharing policy, the Department can target its regulatory intervention in a manner that clearly addresses its policy objective and does not result in introducing other unnecessary distortions in the competitive marketplace.

As discussed above, the Department's objectives of encouraging facilities-based new entry would be best served by concentrating on encouraging the sharing of towers rather than mandating roaming between competing carriers' networks. By extending tower sharing to new entrants, the Department will address a barrier to entry and encourage the expansion of facilities-based competition without distorting other aspects of the market.

## **Impact of a Merger Between Telus and Bell**

The recent media reports concerning the possibility of Telus acquiring BCE might be seen in some quarters as grounds for greater regulatory intervention in the AWS auction process.

While it is true that such a merger could have a profound impact on the competitive structure of both the wireless and wireline markets, it does not follow that the mere possibility of such a combination should in any way affect the Department's analysis of the current market conditions. The AWS auction policy

cannot be dependent on the mere proposal of changes in the industry's structure, and any such discussion is clearly premature.

If Telus and BCE eventually conclude an agreement to merge, or a take-over by one of the other, the Competition Bureau will conduct a full-scale assessment of the impact of such a transaction on all sectors of the telecommunications and broadcasting markets in which these two companies are involved. An important part of this analysis will focus on the mobile wireless market.

The Department will also have to assess any change in ownership and control of spectrum licences held by the parties. This type of assessment can only take place against a background of complete knowledge of all of the details of any such transaction.

Given the anticipated impact of the proposed merger on the competition structure of the mobile wireless and other telecommunications markets, Rogers would expect that any serious attempt by the parties to clear the transaction through the Competition Bureau would involve a combination of divestitures, and pro-competitive safeguards designed to minimize any lessening of competition in the relevant markets. Such conditions could in theory include measures such as the merged entity being subject to spectrum caps as well as being required to offer roaming rights, tower sharing, and divestiture of spectrum or business units. These types of conditions would have to be agreed to by the merging parties as a condition of receiving approval for the merger (assuming that the Bureau does not deny approval outright, as might ultimately be the case) and must not be imposed on any company not a party to the merger.

In any event, these issues will be explored in a wholesome manner if and when a merger or acquisition agreement is concluded. It is both premature and unnecessary to adjust the AWS auction policy at this juncture to reflect such a possibility.

## 4.1 Spectrum Bands

**Comments are sought by the Department as to whether:  
the band plan shown in Figure 1 should be adopted in Canada - if not,  
please provide specific alternative options and the rationale justifying your  
suggestion;**

A number of parties, spanning the entire spectrum of interests, urged the Department to harmonize the AWS band plan with that of the U.S. Rogers notes that these views are predicated on substantive issues that relate to the availability and cost of AWS technology and to the ease and speed by which AWS services can be implemented throughout Canada and along the U.S. border.

For example, Bell said that harmonization with the US AWS band plan will “facilitate more effective Canada-US border frequency coordination”, “reduce potential base station and terminal complexity”, and “allow for exploitation of economies of scale.”<sup>116</sup> Telus made similar remarks.<sup>117</sup> Nortel was emphatic that precise harmonization with the U.S. is crucial and stated the following in this regard:

However exact harmonization is required with the United States (U.S.) for the blocks within the 1710-1755 / 2110-2155 MHz bands. Harmonization will be crucial for both ensuring the rapid availability of equipment and simplifying cross-border interference concerns. It will also eliminate the need for further dialog and action in multiple standards bodies who, without harmonization, would need to define new band classes and have them implemented in handsets and base stations. Base station use in the 2110-2155 MHz band is well suited for facilitating international roaming.<sup>118</sup>

Nortel believes that significant advantage to Canada will occur if the block edges are exactly harmonized with the current blocks in the U.S. This

<sup>116</sup> Bell Submission, May 25, 2007, at page 21.

<sup>117</sup> Telus Submission, May 25, 2007, at pages 70-71.

<sup>118</sup> Nortel Submission, May 25, 2007, at page 23.

synergy will facilitate equipment availability at lower cost and rapid equipment deployment. Thus, we would support the definition of six paired sub-blocks aligned with the allocations in the U.S., rather than the current proposed five paired blocks.

Without such synergy, the various standards bodies would have to define new band-classes of operation and would also have to identify unusable frequencies for operation as they fall on or near block edges, which would be different in the U.S. These new band-classes would then need to be implemented in handsets and base stations.<sup>119</sup>

In light of the significant concerns that have been raised regarding the AWS band plan, Rogers strongly recommends that the Department heed the advice of the majority of parties and harmonize the AWS band plan with the U.S. The costs and risks of deviating from this course are too great.

Rogers notes that, for the most part, the larger integrated competitors, such as Quebecor<sup>120</sup> and MTS-Allstream,<sup>121</sup> proposed a band plan that would result in only a single new entrant with a substantial spectrum block in a given area. They made these proposals in order to foreclose the possibility that additional new entrants with substantial spectrum blocks will emerge. Their position is self-serving and anti-competitive and should be disregarded by the Department.

The remaining parties that supported the proposed AWS band plan have provided little or no justification for doing so and their position should be disregarded.

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<sup>119</sup> Ibid, at page 5.

<sup>120</sup> Quebecor Submission, May 25, 2007, at page 46.

<sup>121</sup> MTS Allstream Submission, May 25, 2007, at pages 52-53.

### **4.2.1 AWS Service Areas**

**Comments are sought on the proposed tier sizes for AWS spectrum. Comments are sought on whether the block and tier sizes given above will allow the entry of new carriers in the market.**

As Rogers outlined in its May 25, 2007 comments, the use of Tier 2 service areas for the licensing of mobile spectrum would be consistent with the Department's past practices and would be more suitable for the licensing of spectrum that will be used for the implementation of wide area mobile systems. It will also avoid a number of technical issues that would arise if smaller areas are used. For these reasons, the Department used Tier 2 service areas when it licensed PCS spectrum in the 2001 spectrum auction, and it has proposed the use of Tier 2 areas for licensing additional PCS spectrum and spectrum in the 1670-1675 MHz band in the upcoming auction.

Virtually all parties with any significant experience in building and operating mobile networks urged the Department to license AWS spectrum on the basis of Tier 2 service areas. Shaw also supported the use of Tier 2 areas.<sup>122</sup>

Bell highlighted the fact that licensing mobile spectrum using Tier 2 areas will allow licensees to provide more consistent mobile coverage.

Since large contiguous service areas are more suitable for mobile service than small non-contiguous service areas, auctioning Tier 2 service areas will eliminate the undesirable situation where a participant obtains the licence in a number of small non-contiguous service areas<sup>123</sup>

Bell also said that the use of smaller tiers “[w]ill make the implementation of the spectrum cumbersome” and Bell recommended that “the number of licences

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<sup>122</sup> Shaw Submission, May 25, 2007, at page 19.

<sup>123</sup> Bell Submission, May 25, 2007, at page 27.

around border areas be minimized to the greatest extent possible” in order to “maximize spectral efficiency”.<sup>124</sup>

Similarly, Telus said that “[s]pectrally, Tier 4 blocks are the least efficient” and with the use of Tier 3 and 4 areas, “coordination on interference matters alone will consume spectrum for guard bands and other preventative procedures”.<sup>125</sup> In supporting the use of Tier 2 areas, Telus observed that “[i]t supports scale but does not exclude regional players”.<sup>126</sup> Like Rogers, Telus viewed the Department’s use of Tier 2 or larger service areas as an important factor in the successful deployment of mobile services in Canada, especially compared to the U.S. where dropped calls and roaming charges are a greater issue as a result of the use of smaller licence areas.<sup>127</sup>

The RABC said that using Tier 2 areas will “facilitate the deployment of wide area systems for both new service plans or the extension of capacity while at the same time simplifying coordination requirements”.<sup>128</sup>

Even MTS Allstream proposed the use of Tier 1 and Tier 2 for the new entrant blocks that it has proposed.<sup>129</sup> Similarly, Quebecor proposed the use of Tier 2 for the largest new entrant block that it has proposed.<sup>130</sup> Clearly, the fact that these parties have proposed the use of larger tiers for the blocks that they hope to bid for demonstrates that they believe that the use of larger tiers is more practical and sensible for the licensing of this spectrum. The fact that they have proposed the use of smaller tiers for the other smaller blocks that they have proposed should be disregarded by the Department since it is obvious that they have little interest in these blocks.

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<sup>124</sup> Ibid, at page 25.

<sup>125</sup> Telus Submission, May 25, 2007, at page 75.

<sup>126</sup> Ibid, at pages 77.

<sup>127</sup> Ibid, at pages 77-78.

<sup>128</sup> RABC Submission, May 25, 2007, at page 11.

<sup>129</sup> MTS Allstream Submission, May 25, 2007, at page 52.

<sup>130</sup> Quebecor Submission, May 25, 2007, at page 46.

Rogers notes that some parties, such as Barrett Xplore, for example, urged the Department to licence AWS spectrum using smaller licence areas. They claimed that the use of smaller areas is necessary so that they will be able to successfully bid for spectrum in, and provide services to, less profitable markets.<sup>131</sup> While Rogers applauds parties that believe that they can economically provide advanced mobile services to sparsely populated areas, it does not agree that the use of smaller licensing areas is required to address this objective.

These parties appear to be unaware of the fact that a policy already exists for the licensing of unused mobile spectrum in underserved areas. There is a policy that has existed for several years and has been used by parties that want to implement wireless services in underserved areas. The continued use of this existing and effective policy would be more appropriate and less problematic than using smaller areas in the licensing of AWS spectrum.

Further, a number of PCS licences have been available for some time in many rural areas and few if any of the parties currently arguing for smaller tiers participated in the recent licensing process that was conducted for these licences.

In any event, Barrett's proposed use of Radio Information Circular (RIC) 27 to define urban and rural service areas based on population density<sup>132</sup> might be suitable for the licensing of fixed services, however Rogers believes that it would be impractical for the licensing of mobile services. As noted above, the use of large tiers are the most suitable basis on which to license wide area mobile systems. Like Tier 3 and Tier 4, the use of RIC 27 could prevent bidders from assembling contiguous licence areas, which would not be a desirable result.

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<sup>131</sup> Barrett Submission, May 25, 2007, at pages 10-11.

<sup>132</sup> Ibid, at page 11.

A number of parties that supported the proposed AWS tiers have provided little or no justification for doing so, and their position regarding this matter is not consistent with their support for the use of Tier 2 service areas for the licensing of the PCS expansion and 1670-1675 MHz bands. Therefore, the Department should disregard their comments.

### **5.3 Licence Term, Renewal and Implementation Requirements**

**Comments are sought on the licence term, implementation and renewal proposals. Specifically, comment is sought on:**

- the proposal to use a 10-year licence term;**
- whether an interim implementation requirement should be imposed;**
  - if yes, respondents should provide a rationale and an explanation of the implementation parameter(s) the Department should consider, the time frame for such a measure and the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area);**
- whether the renewal expectancy provisions and process are suitable;**
- if not, respondents should provide a description of the rationale for different approaches;**
- whether requiring application for renewal 2 years before licence expiry is appropriate;**
- the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area); and**
- the provisions the Department should consider when a licensee is determined to not fully meet the renewal expectancy requirements (e.g. the revocation for part or all of the spectrum or geography).**

The vast majority of parties supported the use of AWS licence terms that are greater than 10 years and they urged the Department to continue with its past practice of licensing commercial mobile spectrum with a “high expectation” of renewal. Virtually all of these parties agreed that this would foster more

favorable investment conditions for licensees and would help to mitigate the significant risk involved in building out mobile networks. Rogers agrees with these parties.

Bell proposed that a portion of the auction proceeds be used to underwrite some of the capital and operating costs of incurred by licensees in providing lawful interception services.<sup>133</sup> Rogers supports Bell's proposal.

## **1. R&D**

A number of industry participants, including Bell,<sup>134</sup> Telus,<sup>135</sup> and SaskTel<sup>136</sup> stated that the proposed research and development requirement is no longer relevant and should not be imposed on AWS licensees.

For its part, Rogers proposed in its comments that the Department should provide carriers with the flexibility to spend 2% of their adjusted gross revenues on their own implementation of mobile services in rural areas. Rogers continues to believe that this would go a long way to fostering the extension of wireless services to high cost areas and would be consistent with the federal telecommunications policy objective of extending reliable and advanced telecommunications services to both urban and rural areas.

## **2. Implementation Requirements**

The Department invited comments on whether any implementation requirements are necessary for AWS spectrum, and in its comments Rogers recommended that implementation requirements be imposed as a condition of new entrant AWS licences. There is no point in licensing spectrum to new entrants if they are not going to use it to build competitive mobile networks. Rogers notes that a number

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<sup>133</sup> Bell Submission, May 25, 2007, at page 43.

<sup>134</sup> Ibid, at page 44.

<sup>135</sup> Telus Submission, May 25, 2007, at page 87.

<sup>136</sup> SaskTel Submission, May 25, 2007, at page 20.

of prospective new entrants also supported the notion that implementation requirements should be imposed.

MTS Allstream proposed that licensees be required to cover 50% of the population within their service area within five years, although it asserted that “entrant licensees” should be given a longer period of time.<sup>137</sup> Quebecor proposed an implementation requirement of 50% within three years “to ensure that spectrum is rapidly and effectively used”.<sup>138</sup> The need for, and benefit of, meaningful implementation requirements is also implicit in Quebecor’s assertion that facilitating the entry of new regional players in the wireless market will “enable a faster deployment of advanced 3G technologies in rural areas such as HSDPA and EVDO Rev A and their future evolution.”<sup>139</sup> Toronto Hydro Telecom proposed that licensees should be required to have their “network substantially complete within five years”.<sup>140</sup> It defined “substantially complete” as 80% coverage.<sup>141</sup> CWTA proposed that, if new entrants are provided with a subsidy, such as a spectrum set-aside, “there should be additional roll-out or demonstration of use requirements.” CWTA stated that “If new entrants are not required to pay the market value of the spectrum, they will have little incentive to generate a return on their investment by building a network”.<sup>142</sup> The RABC stated that “any new entrants should be required to adhere to minimum implementation requirements as the incumbents were in the 1985 and 1995 licensing process, to ensure that they will invest in the development of their own facilities-based networks”.<sup>143</sup>

Rogers agrees with these parties that implementation requirements are necessary, however, the coverage requirements that some of these parties have

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<sup>137</sup> MTS Allstream Submission, May 25, 2007, at page 57.

<sup>138</sup> Quebecor Submission, May 25, 2007, at page 17.

<sup>139</sup> Quebecor Submission, May 25, 2007, at page 14.

<sup>140</sup> Toronto Hydro Submission, May 25, 2007, at page 23.

<sup>141</sup> *Ibid.*, at page 23.

<sup>142</sup> CWTA Submission, May 25, 2007, at page 20.

<sup>143</sup> RABC Submission, May 25, 2007, at page 15.

proposed are inadequate. In many markets, building the major cities only would result in service to 50% of the population. As a result, the new entrants would not be providing competitive service to Canadians in rural areas, villages and towns or even in many cities. As Rogers proposed in its comments, new entrant licensees should be required to provide coverage to a minimum of 75% of the population within their service area within five years. This approach would help to ensure that new entrants do not limit the build out of their networks to urban areas and it would increase the facilities-based competitive alternatives in rural areas. It would also be consistent with the requirements that have been imposed by the Department in licensing cellular spectrum in 1985 and in licensing multipoint communication systems (MCS) spectrum in 2006.

Specifically, in 1985, the Department required Rogers (then Cantel) to implement its cellular services in the top 23 markets in Canada within three years. This was an aggressive and ambitious requirement in what was at the time a nascent market. More recently, Inukshuk has been required to implement MCS services in 21 Census Metropolitan Areas, 21 Census Agglomerations (cities), as well as more than 50 rural communities, within three years. Clearly, the Department's historic and recent approach to spectrum utilization has been consistent and the same approach should be used when licensing AWS spectrum. This will ensure that new entrants will build the competitive networks that they claim are so urgently required by Canadians in urban and rural areas.

Rogers' proposed implementation requirement is also consistent with the implementation requirements that have been used in other jurisdictions. For example, 3G licensees in the U.K. have been required to provide coverage to 80% of the population approximately 7 years following the auction. In Ireland, licensees were required to cover 80% within 5 years.<sup>144</sup>

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<sup>144</sup> Lemay-Yates. A Discussion of Spectrum Licence Conditions.(October 2006), at pages 29 and 42.

### **3. Payment of Auction Fees**

Many submissions have requested extensions to pay their auctions fees. Quebecor for one argued “that it is not on the public interest to impose up-front payment of licence fees to new entrants in the upcoming auction as it results in significant discrimination towards new entrants in 2007, compared to conditions provided to new entrants in the 1980’s and in 1995.”<sup>145</sup> This again is a distortion of what truly occurred.

As explained earlier, there was no auction in 1984 or 1995. Instead there were beauty contests as there simply was not enough revenue and too much risk to justify an auction. In order to collect rents for the spectrum, Industry Canada had to assess annual licence fees, collecting over a billion dollars to date. Today, with millions of customers, wireless is a strong growing business without the risks faced twenty years ago. An auction is therefore the logical method to award spectrum. There is simply no comparing the two situations.

In addition, unlike twenty years ago, there is no shortage of capital willing to invest in wireless ventures. A new entrant will have no difficulty raising the funds to participate fully in an auction and there is therefore no reason to defer payment.

Finally, payment deferral plans in other jurisdictions have been complete failures. The U.S. 1995 C block set aside failed in part due to the favourable payment plans created for new entrants. Professor Peter Crampton explained, “The auction failed largely because of overly attractive installment payments (10% down and 6 year interest only at the risk free 10 year Treasury rate). This encouraged speculative bidding, which led to all the major bidders defaulting and

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<sup>145</sup> Quebecor Submission May 25, 2007, at page 74.

declaring bankruptcy”.<sup>146</sup> In fact, “Since the C-block experience, the FCC no longer offer installment payments”.<sup>147</sup> If a new entrant is unable to put together the financing to pay for the licenses, it is unlikely to have the resources to deploy their network.

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<sup>146</sup> Professor Peter Crampton. Lessons Learned from the United States Spectrum Auctions. United States Senate Budget Committee (10 February 2000), at page 4.

<sup>147</sup> Ibid., page 4.

## **Appendix 1: Analysis Study**

Rogers notes that certain detailed confidential customer usage information has not been provided in Appendix 1 (attached), as Rogers does not disclose this level of disaggregated information.

## **Appendix 2: Chronology of PCS Blocks Transferred Since February 2001**

1. On June 23, 2004 five MHz of spectrum band C1 in area 2-14 was acquired by Ice Wireless Inc.
2. On November 8, 2004, several portions of area 2-09 of spectrum band D were acquired by several OTA members.
3. On June 6, 2005, spectrum band C2 in Eastern Quebec (area 2-04) and spectrum band B2 in BC (TEL-45) and spectrum band B3 in Alberta (area 2-12) were transferred from W2N Inc. to Bell Mobility Inc.
4. On July 16, 2005, Industry Canada released Gazette Notice DGRB-002-05, "Available Personal Communications Services (PCS) Spectrum in the 2 GHz frequency range." Through this First-Come, First-Served (FCFS) process, the following bands were acquired by carriers:
  - a. Telus acquired band D spectrum in Fort Nelson (TEL-46) and in Prince Rupert (TEL-47);
  - b. Yamatech Group Inc. acquired band D spectrum in New Brunswick (area 2-03) and band C2 spectrum in Saskatchewan (area 2-11);
  - c. Bell Mobility acquired band D spectrum in numerous areas, such as Mont-Laurier, Les Bois-Francs, Saint-Ours, Magdalen Islands, Clarendon, Bedford, Drummondville-Sud, Château-Richer, Frontenac; except Abitibi and James Bay (TEL-03), Valcourt (TEL-04), La Baie (TEL-05), Courcelles (TEL-06), Lambton (TEL-07), Nantes (TEL-08), Saint-Victor (TEL-09), Warwick (TEL-10), Acton (TEL-11), Saint-Éphrem (TEL-12), Saint-Liboire (TEL-13), Etchemin, Nicolet, Saint-Ludger (TEL-14), Sainte-Rosalie, Notre-Dame-du-Bon-Conseil (TEL-15), Saint-Paulin (TEL-16).
  - d. Group CLR acquired a five MHz pair from spectrum band C1 in Northern Quebec (area 2-07).
  - e. Harmony Mobile Networks acquired band D spectrum in Newfoundland and Labrador (area 2-01), North-Eastern Ontario (TEL-71), Cochrane (TEL-62), Kenora (TEL-26), Moosenee, Iroquois Falls, Marten River, and Temagami (TEL-37), band B3 spectrum in Sept-Iles and Gaspésie, Beauce, Saint-Georges, Sainte-Clotilde-de-Beauce (area TEL-02), spectrum band E in Northern Quebec (area 2-07) and in Yukon, NT and Nunavut (area 2-14).

## Appendix 3: Merger Activity in the United States Cellular Industry since 1995

<b>Year</b>	<b>Event</b>
<b>1995</b>	<ul style="list-style-type: none"><li>▪ SNET becomes a partner of Cellular One</li><li>▪ NTELOS acquires PCS spectrum in Western Virginia and West Virginia</li><li>▪ PrimeCO Communications was founded as a joint venture between Bell Atlantic and Airtouch</li></ul>
<b>1997</b>	<ul style="list-style-type: none"><li>▪ SBC acquires Pacific Telesis and becomes SBC</li></ul>
<b>1998</b>	<ul style="list-style-type: none"><li>▪ Triton Cellular acquires AAT RSA Co.</li></ul>
<b>1999</b>	<ul style="list-style-type: none"><li>▪ Vodafone group merges with Airtouch and become Vodafone</li><li>▪ Bell Atlantic merges with Vodafone and become Bell Atlantic</li><li>▪ Western Wireless becomes a partner of Cellular One</li><li>▪ Triton Cellular acquires Cranford Cellular Communications LLC</li><li>▪ Triton Cellular acquires Blue Mountain Cellular Telephone</li></ul>
<b>2000</b>	<ul style="list-style-type: none"><li>▪ Verizon founded as joint venture between Bell Atlantic and GTE Corp</li><li>▪ NTELOS buys the Eastern Virginia assets of PrimeCO Personal Communications</li><li>▪ Rural Cellular Corp acquires Triton Cellular Partners</li></ul>

<b>Year</b>	<b>Event</b>
<b>2001</b>	<ul style="list-style-type: none"> <li data-bbox="454 315 1360 388">▪ Deutsche Telekom (member of Freemove Alliance) acquires Voicestream and Powertel becoming T-Mobile</li> <li data-bbox="454 430 1360 504">▪ Cingular founded as joint venture between SBC and Bell South</li> </ul>
<b>2004</b>	<ul style="list-style-type: none"> <li data-bbox="454 535 1360 577">▪ Rural Cellular Corp acquires Saco River Company</li> <li data-bbox="454 588 1360 661">▪ AT&amp;T Wireless merges with Cingular becoming The New Cingular</li> <li data-bbox="454 693 1360 735">▪ Revol acquires Northcost PCS</li> </ul>
<b>2005</b>	<ul style="list-style-type: none"> <li data-bbox="454 766 1360 808">▪ AT&amp;T merges with SBC becoming AT&amp;T</li> <li data-bbox="454 840 1360 882">▪ Sprint merges with Nextel becoming Sprint Nextel</li> <li data-bbox="454 913 1360 1029">▪ Alltel acquires, Western Wireless, Midwest Wireless, First Cellular of Southern Illinois, Virginia Cellular and Cellular One of Amarillo, Texas</li> </ul>
<b>2006</b>	<ul style="list-style-type: none"> <li data-bbox="454 1060 1360 1102">▪ AT&amp;T merges with Bell South creating AT&amp;T Mobile</li> </ul>
<b>2007</b>	<ul style="list-style-type: none"> <li data-bbox="454 1134 1360 1176">▪ Sprint Nextel buys Northern PCS Services LLC</li> </ul>