

PUBLIC MOBILE INC.

Public Mobile Inc.'s Response to:

*Canada Gazette, Part I, SMSE-018-10, November 30, 2010 -
Consultation on a Policy and Technical Framework for the 700 MHz
Band and Aspects Related to Commercial Mobile Spectrum*

28 February 2011

Introduction

1. The pending auction of 700 MHz spectrum will be a critical juncture in the evolution of the wireless industry in Canada. Industry Canada should seize on this opportunity to extend the benefits that have been generated since the successful AWS auction in 2008 by adopting a plan for the auction that continues to support the development of sustainable competition in Canada. The lifeblood of wireless carriers is access to capital and access to spectrum. While the private sector plays the critical role in providing the capital needed to develop wireless competition, only the Government of Canada can ensure that there is adequate access to provide the necessary framework to facilitate sustainable competition.

2. The policies adopted in conjunction with the 2008 AWS auction were a critical first step. By setting aside spectrum for new entrants and mandating favourable conditions of licence Industry Canada created the environment, for the first time in more than a decade, for new entrants and real competition in the wireless market. The results have been profound: Public Mobile and other new entrants are bringing real choice in wireless services to Canadians. Prices are lower and wireless penetration is increasing at a faster rate as consumers previously marginalized by the oligopoly incumbent carriers are joining the world of wireless conversation.

3. However, having successfully established competition in the marketplace, Industry Canada should now take the steps necessary to ensure that competition is

SUSTAINABLE. The consultation document states:

Sufficient spectrum to enable wireless network expansion and new broadband technologies will be needed to allow the continued growth of wireless broadband,

leading to lower prices and improved quality of service for end-users, as well as enhanced opportunities for innovation and investment.¹

4. What Industry Canada and the Government should appreciate is that this requirement is not just true of the industry as a whole, but it also applies to individual carriers. The 2008 auction set aside 40MHz of AWS spectrum for new entrants. This set aside has enabled as many as three new entrants in many of the major markets across Canada to bring better prices and innovation to Canadian consumers. However, with the incumbents still holding 85% of all licensed spectrum, it remains critical to continue to rebalance the industry to ensure competition is sustainable to bring the benefits of competition to Canadians over the medium and long term.

5. Every new entrant requires more spectrum to grow and sustain its business over the long term. The additional spectrum is needed for a number of uses including adding capacity, evolving networks to new technologies like LTE, launching new services and expanding geographically. The demand for new services, particularly broadband, will continue for the foreseeable future. The move to 4G facilitated by LTE is one of the most important advancements in wireless history. ANY NEW ENTRANT WITHOUT THE ABILITY TO LAUNCH LTE WILL BE MADE OBSOLETE IN THE CUSTOMER'S MIND. Without 700 MHz new entrants will be unable to launch a viable LTE offering. While the large Incumbents in Canada already hold more spectrum than their US counterparts – yet use that spectrum to provide less service to fewer customers – all of the new entrants are constrained by their current spectrum holdings.

¹ Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum, pg. 2.

6. It is especially important that 700 MHz spectrum be available for new entrants. The PCS and AWS spectrum held by all the new entrants has inferior propagation and penetration characteristics as compared to 700 MHz spectrum. PCS and AWS are less efficient spectrum, both for deploying services to rural Canadians and for providing optimal coverage penetration within buildings in urban areas. Rogers, Bell and TELUS (the Incumbents) already have a substantial competitive advantage from having been gifted similar 800 MHz spectrum more than 25 years ago, and will be able to launch their LTE service on that and other spectrum. Both Rogers and Bell announced that they are already in the process of trialing LTE in test markets, suggesting they do not need more spectrum in order to launch LTE. Without 700 MHz spectrum new entrants will not be able to launch a comparable LTE service.

Why competition matters:

7. Increased competition generates multiple benefits for Canadians and the Canadian economy. Competition from new entrants leads to lower prices and new alternatives for consumers. Competition encourages innovation as companies seek to introduce new technologies and develop new business models to do so. Competition also drives investment as companies build new infrastructure to bring new technologies and services to market. All of this benefits the Canadian economy by increasing investment and jobs that enable Canadians to get better, more diverse services at better prices.

8. In the case of telecommunications, there is an additional benefit from the role this technology plays in the overall economy. As with other areas of information and

communication technologies, growth and investment in telecommunications creates a “multiplier” effect, enabling businesses to improve productivity, develop new services to interact with consumers in new ways, and to create more new economy jobs.

9. The Government's policy objective of encouraging new entrants and additional competition in the Canadian wireless industry is the correct one. But these are early days. Public Mobile and most other new entrants have been operational for less than a year. Despite the positive impact the new entrants are having on the wireless market, they still only account for an estimated 1.2% market-share combined. Contrast this with the combined 94% market-share for Rogers, Bell and TELUS. Also consider the combined \$16.9 billion and \$6.9 billion the three companies earned in 2010 wireless revenue and EBITDA respectively and the tremendous imbalance between incumbents and challengers becomes clear. The existence of emerging new entrant competitors does not equate to “healthy and robust competition” and certainly doesn't imply a level playing field that simply does not yet exist.

10. Not only does a level competitive playing field not yet exist, but incumbent carriers are actively engaged in competitive measures to try to make sure that it never does. Taking advantage of their dominant positions, the Incumbents are attacking new entrant challengers through their flanker brands (including Fido, Solo and Virgin) where they are introducing plans with characteristics and price points nearly identical to new entrant plans. The most egregious example is Rogers' launch of Chatr, a new brand which Rogers went to great lengths to pass off as a new entrant in the minds of consumers. Intended principally as a market distraction and as a vehicle to block new entrants from valuable distribution channels, Chatr's advertising, unabashedly targeted

at new entrants, was so misleading and subversive that the Competition Bureau felt it had no choice but to take the unprecedented step of taking legal action against Rogers. In a press release, the Commissioner of Competition, Melanie Aitken, noted that "The spectrum auction was intended to enhance competition in the wireless sector, New entrants attempting to gain a foothold in the market should not be discredited by misleading claims made by their competitors."² We realize the Department cannot stop Chatr's misleading advertising tactics. However as Commissioner Aitken noted, it can take steps to protect sustainable competition in the Canadian wireless services industry, in this case through the design of an auction framework that recognizes the ongoing imbalance between Incumbents and fledgling new entrant challengers.

11. In order for Canadians to continue to benefit from more competition in wireless in the future, Industry Canada should continue to adopt and promote policies that not only encourage competition but ensure that it is sustainable. This is the only way that competition will persist in the long-term and not be a short-lived blip before a slide back to an oligopolistic state. In the context of spectrum policy, this means designing the 700 MHz auction in a way that again makes the acquisition of spectrum not only attractive but attainable for new entrants.

12. Public Mobile and the other new entrants are doing our part. Public Mobile itself has invested hundreds of millions of dollars to bring choice to Canadian consumers. We have created hundreds of new Canadian jobs directly in our offices and corporate stores and many hundreds more indirectly in our dealer stores, call centres and at the many vendors and suppliers that support our business. Furthermore and perhaps most

² Competition Bureau website: Media Centre: Announcements, "Competition Bureau Takes Action Against Rogers Over Misleading Advertising, November 19, 2010" < <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03316.html>>

profoundly of all, through our presence in the marketplace we are pushing the incumbent carriers to offer innovative products to their customers, multiplying the effect of our market entry; all resulting in material benefits to Canadian consumers.

13. New entrants need fair and reasonable access to spectrum to remain competitive. In setting the framework for the 700MHz auction, Industry Canada has an opportunity to solidify the foundation for sustainable competition – the foundation it helped create through the design of the 2008 AWS auction and accompanying conditions of licence. We look forward to participating in this consultation process and contributing to the long-term evolution of the Canadian wireless market.

On the need for 700 MHz spectrum:

14. As described above, the 700 MHz spectrum band is particularly important because of its propagation characteristics. It is also important for all new entrants as the means to effect the deployment of the next generation of broadband services through LTE. The auction must be designed to ensure there is sufficient distribution of the valuable sub-1GHz spectrum among wireless carriers. The incumbent carriers already hold 25 MHz of spectrum in the 800 MHz cellular bands. If Rogers, TELUS and Bell are allowed to buy up even more of this uniquely valuable spectrum, it will only serve to further consolidate holdings among a small group of carriers, perpetuating their collective competitive advantage and market power to the detriment of sustainable competition and the marketplace as a whole.

15. The incumbent carriers have shown time and again that they will buy up any and all available spectrum at any price to keep it out of the hands of challenger companies.

The Incumbents acquired virtually every licence in the AWS auction that was not set aside for new entrants. Yet, none has made any use of that spectrum. Despite probable protestations to the contrary in their submissions, there is no reason to believe that they will not do this again in the 700 MHz auction if allowed to by Industry Canada.

On how to treat Bell and TELUS:

16. For the purposes of the 700MHz auction design, rules and policies, fairness and expediency requires that Bell and TELUS be treated as one entity given the contractual arrangement that exists between the parties. Bell and TELUS have operated under a network sharing agreement since 2001, enabling them to combine their complementary network assets to maximize coverage and conserve capital. This agreement amounts to a spectrum sharing agreement, effectively enabling them to warehouse complementary spectrum by piggy-backing on each other's networks.

17. This benefit is particularly important with the shared use of the 800 MHz spectrum that was granted to the two carriers in 1984. The network sharing agreement has enabled each of them to gain the benefits of the other's low frequency spectrum by avoiding the need to build rural areas using 1.9GHzPCS spectrum. A competitive advantage which would only be compounded by giving them unfettered access to 700 MHz spectrum.

On foreign investment and the 700 MHz spectrum auction:

18. Public Mobile submits that foreign investment restrictions should be liberalized or eliminated. We believe that changes to the current ownership and control restrictions in

Canada would be positive for the Canadian wireless industry, Canadian consumers and businesses and the Canadian economy as a whole. However, we submit that any changes to foreign investment restrictions should have no impact or bearing on the auction design for the 700 MHz spectrum licences.

19. Public Mobile submits that regardless of the ownership and control regime, the Incumbents will pay more to keep new entrants out of the wireless services market or from acquiring additional spectrum than any new entrant, foreign or domestic, will pay to purchase spectrum. We believe that the Incumbents will be prepared to pay up for any and all available spectrum, convincing themselves that the blocking value outweighs the cost of buying and warehousing the spectrum.

On what Industry Canada should consider:

20. Fair and reasonable access to spectrum is the cornerstone of sustainable competition because spectrum is the key enabler for wireless companies. In evaluating options for the 700 MHz auction, Industry Canada should consider many factors:

- The current spectrum assets of existing wireless companies (Incumbents have a lot; new entrants have very little)
- The use of current spectrum assets (Incumbents have hoarded spectrum, deploying relatively little of their respective stashes)
- How spectrum has been distributed in the past (i.e. auction, allocation, etc.)
- Commercial relationships between carriers (i.e. Bell and TELUS' use of an integrated network)
- The relative value and importance of different types of spectrum (i.e. sub-1 GHz, AWS, 2500 MHz)

On what Industry Canada should do, specifically:

21. Public Mobile submits that any carrier or carrier consortium (i.e., Bell and TELUS) that holds 800 MHz spectrum should be precluded from bidding on 700 MHz spectrum.
22. In addition, any carrier holding 20 MHz or more of any unused PCS, Cellular or AWS spectrum at the time of this consultation should be precluded from participating in the auction. Carriers with 20 MHz or more of unused spectrum can deploy a robust LTE offering without acquiring 700 MHz spectrum.
23. Lastly, an in-auction cap should be adopted and enforced for each participant in every licensed territory. The in-auction cap would prevent any one auction participant from owning more than 25 MHz of sub-1 GHz spectrum in any particular licensed territory.
24. The above auction framework will ensure that valuable sub-1 GHz spectrum will be distributed among multiple carriers in each region and that carriers with excess spectral will be deterred from adding to their unused stash of spectrum. Implemented together, total set aside of the 700 MHz spectrum, restrictions based on other unused spectrum and an in-auction cap will differentiate between the creation of a temporary facade of competition in the Canadian wireless services market and real, lasting, sustainable competition.

On timing:

25. Holding the auction in mid-2012 (or preferably later) will allow parties sufficient time to procure adequate financing to participate in what is expected to be a very

expensive auction regardless of the framework chosen by Industry Canada. This timing also aligns with expected commercial material of the handset technology ecosystem needed to launch LTE service on 700 MHz. Holding the auction any sooner unfairly biases the Incumbents because of their financial advantage both to participate in an auction at any time and to be able to invest hundreds of millions of dollars in spectrum and then to warehouse it while waiting for it to be commercializable.

On other auction questions:

26. Public Mobile submits that Option 1 (harmonize with the U.S. band plan) is the band plan that should be adopted in Canada. The U.S. band plan is preferred for multiple reasons, principally:

- Handset economics derived from compatibility with US carrier specifications
- Simplification of cross-border use
- Public safety compatibility

27. Public Mobile submits that a mix of Tier II and Tier III licenses should be offered to optimize between bid flexibility and spectrum fragmentation.

4-1. What is the general need for additional commercial mobile spectrum at this time and what do you anticipate the future needs to be?

28. Public Mobile needs additional commercial mobile spectrum. We need additional spectrum to expand coverage, expand our service offerings, and provide next generation services to Canadians. New entrants like Public Mobile have brought the benefits of competition to Canadians; however to sustain competition we need access to 700 MHz spectrum. We need 700 MHz spectrum not to hoard it, but to bring the benefits to Canadians of a long-run, viable wireless service provider. Only through mandating an auction process that encourages sustainable competition can a new entrant like Public Mobile continue to provide the benefits of competitive choice in wireless services to Canadians.

29. Rogers, TELUS and Bell (the Incumbents) will likely take a similar approach to the 700 MHz consultation as they took to the AWS consultation in 2007 and 2008. The Incumbents will submit that competition is alive and well in Canadian wireless. They will also submit that they need spectrum, and that there is enough for everyone. Hence they will likely conclude that since competition is alive and well and spectrum is plentiful, that the Department must rely solely on market forces in auctioning off new spectrum by implementing an open auction framework.

30. However, they will fail to mention that a pure market approach to the auction will only benefit them and their shareholders – and not the long-term interests of Canadian consumers and businesses. As a point of reference it is instructive to recall some of the submissions the Incumbents made during the AWS auction consultation.

31. In Rogers' AWS consultation filing they explain their need for spectrum:

"...As a facilities-based carrier, Rogers therefore believes that it must meet customer expectations for broadband connectivity even if these expectations mean traffic increases of tens or hundreds of times over the next 10 years. The only practical way to meet this requirement is to gain access to more spectrum. In addition to the above, there are also three fundamental reasons why Rogers must gain access to additional spectrum in the AWS band:

Wireless carriers increase network capacity by either using more spectrum or building more network facilities to serve smaller cell sites. The release of new wireless spectrum such as the AWS band creates its own ecosystem of supply and demand.

Rogers is growing its customer base at a rapid rate adding 86,000 customers in Q1/2007 (up from 49,000 in Q1/2006). With this type of growth, particularly given the shift towards data services, Rogers is making more and more demands on its existing spectrum and will need more of this key spectrum 'real estate' to keep up with growing demand for its current mix of services. It is also important to note that facilities-based operators, such as Rogers, have made the investments required to serve Canadian consumers on a national basis (our networks cover 94% of the population)."³

32. In TELUS' submission under the heading "Hoarding is not rational" they state:

"...TELUS notes that some advocates of a spectrum set-aside have argued that a set-aside is necessary because the incumbents will simply bid up the prices and buy all available spectrum as a means of preventing entry. This of course ignores the rational behaviour of publicly traded companies that would risk severe shareholder backlash from such a strategy. It also assumes all incumbents have equal holdings of spectrum."⁴

33. And lastly, in Bell's submission, they state the importance of AWS spectrum to their own strategy and the Canadian public:

"...It would not be an exaggeration to say that AWS spectrum is one of the most important building blocks in the future of wireless communication.

No incentive to waste spectrum

The Consultation Paper expresses concerns that the public interest will not be served if valuable AWS spectrum is kept idle or if used inefficiently by carriers after they secure it through auction. Such misuse of spectrum

³ Industry Canada website, "Spectrum Management and Telecommunications: Consultations, Gazette Notice DGTP-002-07, Comments Received" Rogers Communications Inc. Comments, p.35 <[http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Rogers-Comments.pdf/\\$FILE/dgtp-002-07-Rogers-Comments.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Rogers-Comments.pdf/$FILE/dgtp-002-07-Rogers-Comments.pdf)>

⁴ Industry Canada website, "Spectrum Management and Telecommunications: Consultations, Gazette Notice DGTP-002-07, Comments Received" TELUS Communications Company Comments, p.59 <[http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Telus--FINAL.pdf/\\$FILE/dgtp-002-07-Telus--FINAL.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Telus--FINAL.pdf/$FILE/dgtp-002-07-Telus--FINAL.pdf)>

could also be seen as denying new entrants the use of the spectrum necessary to provide a range of new AWS services.

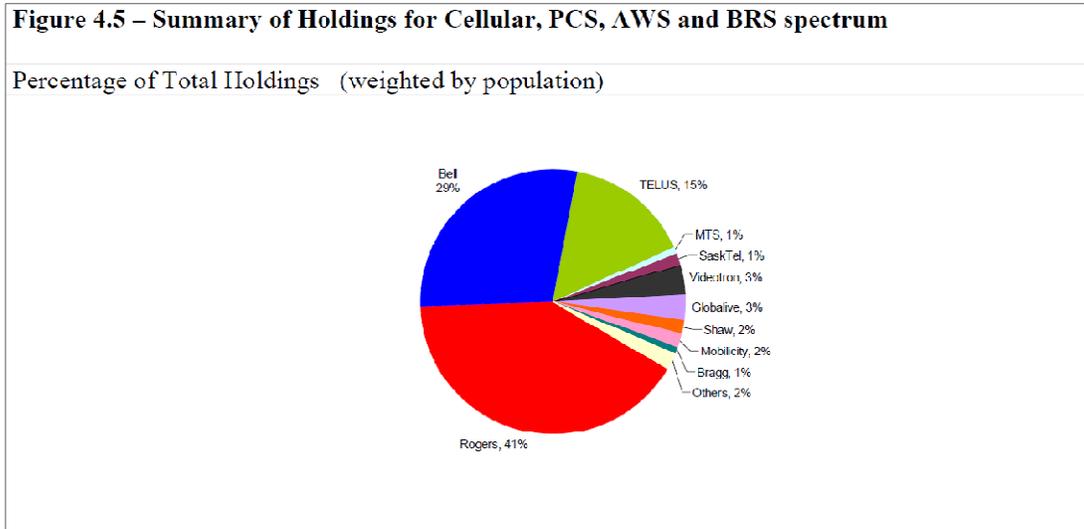
For Bell Canada's part, we are not employing such a strategy. Since commencing service in 1985, Bell has delivered state-of-the-art wireless products and services to Canadians. Acquiring AWS spectrum in 2008 will secure our capacity to continue to do so in the future. But, we will seek to buy only assets that we can use to deliver greater value to our customers and, by extension, our shareholders. If we were to buy more than we need, we would be doing a disservice to shareholders by stranding capital that could be put to better use in other aspects of our business.⁵

34. Almost four years have passed since these submissions were submitted to the Department. Despite any assertions to the contrary, the Department must recognize that the Incumbents have demonstrated irrefutably that they will seize upon every opportunity to purchase spectrum for the purpose of keeping it out of the hands of challenger carriers. An auction that permits the perpetuation of this hoarding behaviour of a scarce resource is inappropriate and counter to Industry Canada's policy to encourage competition.

- **The Incumbents have not used ANY of the AWS spectrum they bought, and have used a paucity of the PCS spectrum they own.**
- **The Incumbents have not developed a device ecosystem around the AWS spectrum.**
- **The Incumbents have hoarded AWS spectrum.**

35. Figure 4.5 in the consultation document released by Industry Canada on 30 November 2010 states that the Incumbents currently own 85% of existing spectrum in Canada, as well as all of the sub-1000 MHz spectrum, in their operating territories. Public Mobile is represented in this chart under "others".

⁵ Industry Canada website, "Spectrum Management and Telecommunications: Consultations, Gazette Notice DGTP-002-07, Comments Received" Bell Canada Comments, p.10-13 <[http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Bell-Canada-AWS-Comments.pdf/\\$FILE/dgtp-002-07-Bell-Canada-AWS-Comments.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Bell-Canada-AWS-Comments.pdf/$FILE/dgtp-002-07-Bell-Canada-AWS-Comments.pdf)>



36. Public Mobile needs more spectrum. We need more spectrum in order to deliver service to rural areas, we need more spectrum so that we can offer competitive data services and we need more spectrum so that we can continue to offer Canadians competitive wireless service for years to come. Conversely, the Incumbents want more spectrum in order to keep new entrants like Public Mobile from effectively competing with them across the country. The Incumbents' past behaviour proves that they are willing to stockpile spectrum against what should be considered to be contrary to good public policy, as it is contrary to the interests of Canadians, and is only done to ensure that competition is muted or stifled.

NOTE: Confidential responses to questions 4-2, 4-3, 4-4 and 4-5 can be found in Appendix 1.

5-1. Based on the criteria listed above, which of the four band plan options should be adopted in Canada? Why is this option preferred over the other options? If Option 3 (APT band plan) is selected, what should the block sizes be?

37. It is Public Mobile's submission that Option 1 (harmonize with the U.S. band plan) is the band plan that should be adopted in Canada for the following reasons;

- i. Handset economics derived from compatibility with US carrier specifications
- ii. Simplification of cross-border use
- iii. Public safety compatibility

38. Adopting a band plan other than the U.S. band plan would devalue Canadian 700 MHz licenses because it would make it economically prohibitive to acquire handsets. A robust handset ecosystem for LTE deployed on 700 MHz is already emerging in the US, primarily driven by AT&T and Verizon. Deploying a band plan specific to Canada would introduce unnecessary costs and challenges in securing infrastructure and devices, likely delaying network and service rollouts, and limiting choices for Canadians.

39. Furthermore, the US band plan provides an 11 MHz paired block and 3 paired blocks of 6 MHz each and 2 unpaired blocks of 6 MHz each, providing a range of options for bidders, while taking advantage of the economics of scale resulting from compatibility with the approach taken in the US.

40. Both options 2a and 2b would result in the band allocations being unique to Canada, and would have the disadvantage of depriving operators of the advantages that harmonization with the US band plan provides i.e. access to the 4G ecosystem as stated above. The APT band plan is the product of a multi-country initiative to harmonize the spectrum across the AP to facilitate the adoption of a unified standard (i.e. LTE). It makes sense for players in these markets as many of them have a presence across the region. However, there haven't been commercial deployments in

this band with these specifications yet; while the US band plan has commercial networks in service already.

5-2. The band plans presented in the options above include guardbands. Should the Department auction the guardbands, or should these frequencies be held in reserve for future use such that they are technically compatible with services in the adjacent bands?

41. It is Public Mobile's submission that the Department should not auction the guardbands. Auctioning the guardbands will require operators to provision for potential interference avoidance techniques resulting from an inappropriate use of the guardband spectrum (both to themselves from potential high power systems that might be used in the public safety system, or to the public safety setup). In our opinion, the guardbands don't provide any additional benefit in terms of spectrum use for operators and hence it is unclear why these guard bands should be auctioned at the same time.

5-3. Do public safety agencies need spectrum for broadband applications? If so:
a) How much and for which type of applications?
b) What are the anticipated deployment plans and the possible constraints, if any, in implementing these plans?
c) Is there suitable alternate spectrum to the 700 MHz to meet these broadband requirements?

42. It is Public Mobile's submission that the vast majority of public safety uses should take place on commercially available networks, with priority access features enabled for time-sensitive scenarios.

- a) Public Mobile is of the opinion that a significant proportion of public safety needs can be met by existing spectrum that is already allocated. A small but growing requirement for high-bandwidth applications within

public safety is likely, but Public Mobile will defer on this issue to Public Safety interveners.

- b) N/A.
- c) Public Mobile defers this question to the public safety interveners.

5-4. Comments are sought on the need for public safety broadband radio systems to be interoperable:

- a) between various Canadian public safety agencies;**
- b) between Canadian and U.S. public safety agencies.**

43. Public Mobile submits that it is logical and purposeful to have interoperability in both cases (a) and (b). We will defer on this issue to Public Safety interveners who ultimately have more experience and more at stake on the issue of public safety broadband radio system interoperability.

5-5. What are the challenges faced today by public safety agencies to have cross-border radio interoperability in other frequency bands?

44. Public Mobile defers to public safety interveners who have more experience with the issue of cross-border interoperability in other frequency bands.

5-6. Notwithstanding your responses to questions 5-3 to 5-5, the Department seeks comments on whether public safety broadband needs can be met by using commercial systems with priority access rights for public safety, at commercial rates.

- a) Your views and comments are invited on priority access rights, including pre-emption, and on the feasibility of such a system.**
- b) What public safety technical and operational requirements cannot be met by commercial systems, from either a public safety or commercial operator point of view?**

c) What specific rules, if any, should be mandated by the Department to make such a system viable?

45. As outlined in Public Mobile's answer to question 5-3 of this consultation, we are in favour of using commercially available networks for most types of public safety emergencies. Severe emergencies could mandate pre-emptive use on a commercial network, while priority access rights at commercial rates would be sufficient for the majority of emergency scenarios.

- a) Public Mobile believes that current wireless networks are advanced and efficient enough to handle the majority of emergency transmissions at any time. There are significant cost and operational benefits to the public safety domain by co-sharing with commercial systems. Commercial operators using LTE in the 700 MHz spectrum will make this even truer, as the newer 4G standards provide features related to priority access. A comprehensive technical study by Roberson and Associates L.L.C. commissioned by T-Mobile and Sprint-Nextel in the US on the viability of using a commercially accepted standard such as LTE for public safety states that technical specifications in the LTE standard allows for guaranteed, automatic access, has provisions for provisioning priority access, access to busy networks and control over public safety telecommunications traffic.⁶
- b) Commercial systems are deployed based on operators' business plans and needs. They cannot be expected to provide a guaranteed level of

⁶ Federal Communications Commission, News, "FCC TAKES ACTION TO ADVANCE NATIONWIDE BROADBAND COMMUNICATIONS FOR AMERICA'S FIRST RESPONDERS, January 25, 2011."
<<http://www.3gpp.org/IMG/pdf/psltdoc-304244a1.pdf>>

service across an entire population base. Commercial networks cannot always assure guaranteed coverage and capacity needs across a geographic area (for e.g. in the subway systems).

- c) The Department should have clear rules surrounding the implementation of a public safety network on a commercial network with respect to the type of applications and uses. Public safety agencies should state their forecasted needs on the network, and be provided with expectations around network capabilities such as priority access and guaranteed QoS features. Public Mobile advises that implementation decisions associated with public safety be taken along with consideration of practices being implemented in the US.

5-7. Comments are sought on the need for regional (local, provincial, etc.) dedicated broadband networks to provide access to all public safety agencies, and the institutional feasibility of implementing such a system.

46. Public Mobile defers on this issue to public safety interveners who have more experience with this issue.

5-8. Is there a need for a dedicated national interoperable broadband network to provide access to all public safety agencies? The Department seeks comments on the institutional feasibility of implementing such a system.

47. Public Mobile defers to public safety interveners who have more experience with this issue.

5-9. If band plan Option 1, 2a, or 2b in Section 5.1 is chosen, which one of the three options described above should be adopted and why is this option preferred over the other options?

48. While Public Mobile would prefer Option 1 as it allows for additional spectrum to be available for commercial use, it advocates harmonizing the public safety band allocation and usage with the decision taken in the US with respect to public safety in the 700 MHz band, as inter-operability with the US in the public safety domain would be considered prudent.

5-10. If commercial operators are mandated to support public safety services, what tier size should be applied in order to ensure adequate public safety coverage?

49. An auction composed entirely of Tier I is geographically too big to expect a competitive bidding process for a public safety network and Tier III would result in fragmented geographic areas which may introduce impracticalities in ensuring adequate coverage for public safety needs. If Option 1 is selected, a mixture of Tier II and Tier III licensing approach would be preferred. If Option 2 or Option 3 is selected, a Tier II licensing approach would be preferred.

5-11. If the APT band plan (See Option 3 in Section 5.1) is adopted:

- a) Given that the APT band plan requires a 55 MHz duplexing separation, can Canadian public safety services operate their current narrowband systems in this band plan configuration? If not, what are possible alternatives to address public safety needs?**
- b) Should spectrum be designated for dedicated public safety broadband systems, and how much?**

50. As mentioned earlier, Public Mobile vehemently opposes the adoption of the APT plan because of the significant costs Canadian carriers would need to bear in order to develop a handset ecosystem to deploy LTE on 700 MHz. These costs can be largely avoided by adopting the US band plan.

- a) If the APT plan is adopted, it is possible that public safety services could operate their narrowband systems in this configuration – this answer is dependent on what public safety agencies feel their requirements are. It is PMI's opinion that the APT plan not be chosen as per the response to 5.1.
- b) As mentioned in the response to section 5.9, PMI is of the opinion that spectrum shouldn't be designated as dedicated to public safety use only, but rather be provided with access on a commercial network.

5-12. The Department seeks comments on whether the auction of 700 MHz commercial spectrum should be based on uniform tier sizes across all spectrum blocks, or a mixture of tier sizes.

51. It is Public Mobile's submission that there should be a mixture of Tier II and Tier III sizes. A mixed tier spectrum plan would allow bidders to manage their business plans for specific geographic regions, and allow them to plan their network deployments with a greater degree of flexibility. This approach to tier sizes was used effectively in the AWS spectrum auction, leading to a reasonable distribution across carriers and licensed areas.

52. Tier II licenses enable carriers to acquire spectrum covering appropriately large geographies that generally include a mix of urban and rural population. As such, by

definition this block size is appropriate for both nation and regional carriers. An added benefit of particular importance in the 700 MHz auction is that 700 MHz spectrum brings with it the opportunity to provide rural Canadians with the same benefits of competition that Canadians in urban markets are experiencing. Due to the propagation characteristics of 700 MHz spectrum it is imperative that the Department mandate tier sizes in rural and urban markets that allows new players to procure spectrum and expand competition beyond major urban markets in a cost-effective fashion.

5-13. Based on your answer above, what tier size(s) should be adopted?

53. Industry Canada should adopt a mix of tier sizes. Adopting a mixture of Tier II and Tier III sizes allows operators to strategize their choices and bid on geographical areas of most interest to them – resulting in a more efficient use of the spectrum. Public Mobile suggests that, two to three paired bands be auctioned using a Tier II licensing approach, while one to two paired bands be auctioned using a Tier III approach. Unpaired bands in the Lower 700MHz could be auctioned using a mix of Tier II and Tier III licenses. Public Mobile asserts that a Tier I strategy should not be used for any bands as it severely limits the options that would be available for operators.

5-14. The Department seeks comments on the transition policy proposed above.

54. Public Mobile submits that LPTV must migrate out these spectrum bands completely and as soon as possible. We believe that there is no need for extended migration timelines, considering the small amount of LPTV stations in operation and

their huge potential impact in terms of interference with wireless signals. There is a need for operators to start deployment of their networks as soon as the auctions are complete, and there cannot be potential for any interference from these stations.

55. We propose that LPTV stations should not be allowed more than six months to migrate off the spectrum in major urban markets. There are not many (if any) LPTV transmitters, and it is important for business certainty to have firm deadlines especially in urban areas.

56. In rural areas the notification regime noted above could be implemented whereby there is a 2 year max limit for transition, or in the alternative a 1 year limit date from the date of notification; whichever comes first. This system would add some flexibility to the transition process in less dense areas while allowing for a quicker transition where there are no LPTV transmitters.

5-15. The Department seeks comments regarding its proposal to permit low-power licensed devices, including wireless microphones, to operate in the band 698-764 MHz and 776-794 MHz only until March 31, 2012.

57. Public Mobile supports the Department's proposal.

6-1. The Department seeks comments on its proposed changes to the Canadian Table of Frequency Allocations for the band 698-806 MHz.

58. Public Mobile agrees with the Department's proposed changes.

6-2. The Department seeks comments on the spectrum utilization policy proposed above.

59. Public Mobile does not have specific comments on the spectrum utilization policy and agrees with the policy that the Department has proposed.

7-1. The Department seeks comments on the current state of competition and its anticipated evolution, including the impact on consumers in the Canadian wireless services market:

- a) in general;**
- b) in terms of its contributions and interaction to the broader Canadian telecommunications service market;**
- c) in comparison with the wireless markets of other jurisdictions.**

60. Public Mobile will answer parts (a), (b) and (c) of this question together.

61. Public Mobile would first like to thank the Department, as the policies that the Department put in place for the 2008 AWS auction facilitated meaningful competition in the Canadian wireless services market.

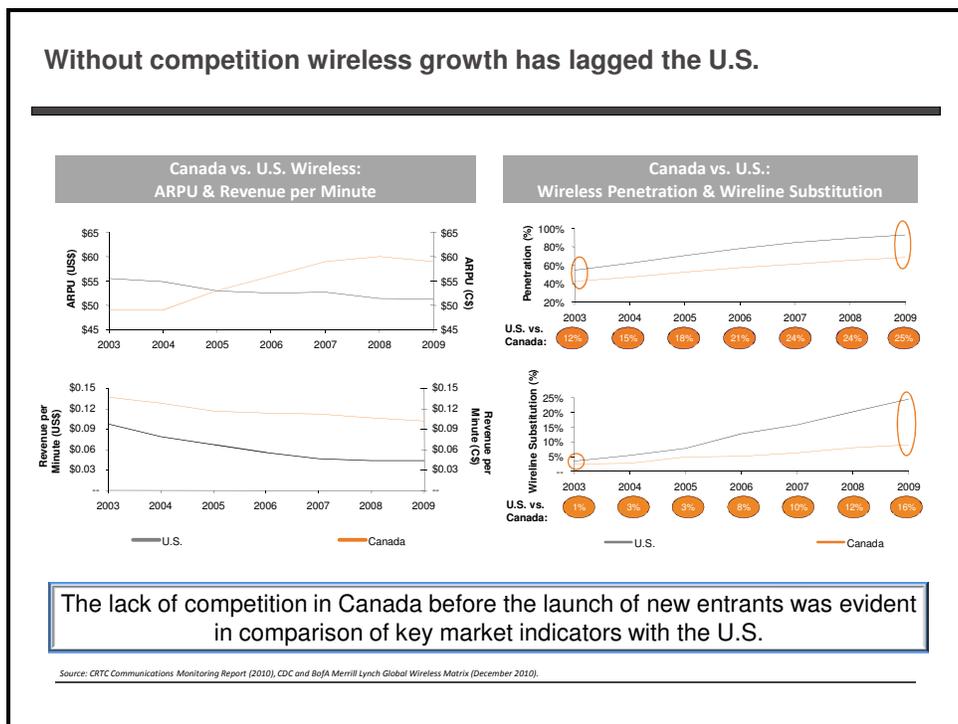
62. Increased competition generates multiple benefits for Canadians and the Canadian economy. Competition from new entrants leads to lower prices and new alternatives for consumers. Competition encourages innovation as companies seek to introduce new technologies and develop new business models to do so. Competition also drives investment as companies build new infrastructure to bring new technologies and services to market.

63. All of this benefits the Canadian economy by increasing investment and jobs that enable Canadians to get better, more diverse services at better prices. In the case of telecommunications, there is an additional benefit from the role this technology plays in the overall economy. As with other areas of information and communication technologies, growth and investment in telecommunications creates a “multiplier” effect, enabling businesses to improve productivity, develop new services to interact with consumers in new ways, and to create more new economy jobs.

64. Prior to the AWS auction, key industry wireless metrics in Canada had been diverging from the US market for some time. Wireless ARPU and price per minute in the US had decreased substantially from 2003 to 2009, especially compared to Canada.

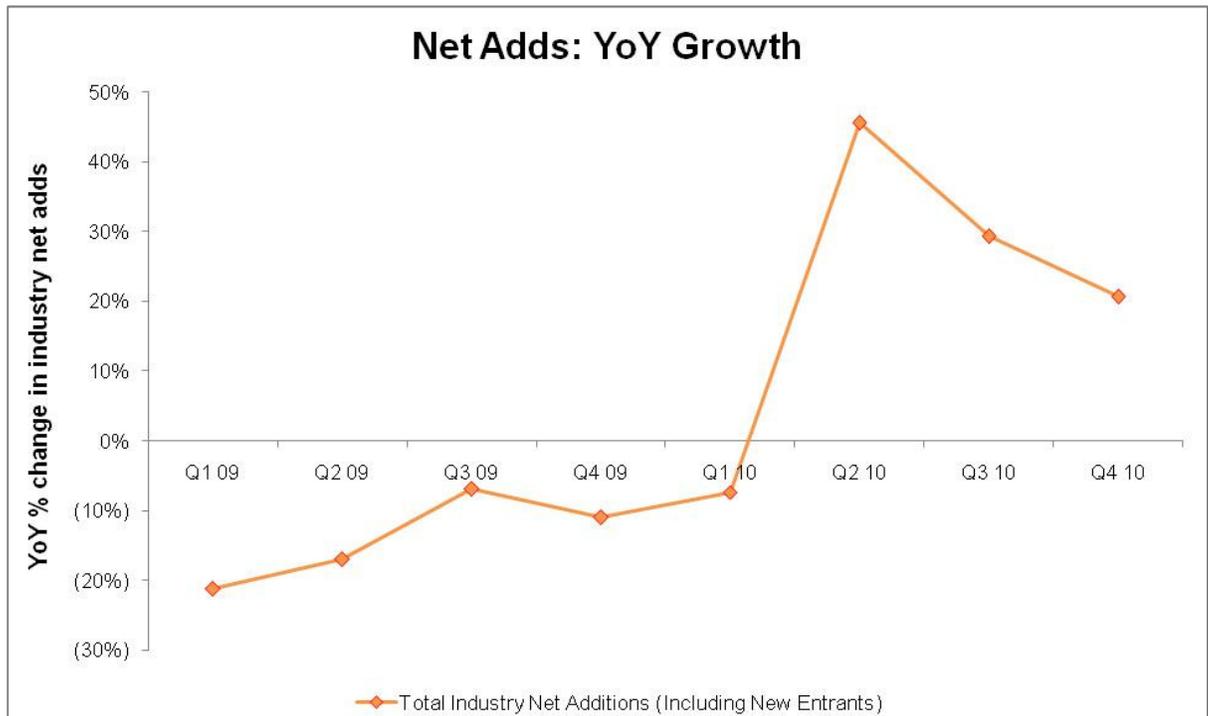
65. The decrease in price in the US directly related to a commensurate increase in wireless penetration and landline substitution, again compared to more meagre gains in Canada.

66. Canada's lagging of the US was symptomatic of a less competitive market where large consumer constituents were excluded from participating. The charts below illustrate these comparisons.



67. Since the launch of the new entrants after the AWS auction, Canadian consumers in the markets where entrants have deployed their networks, have had a real alternative to the incumbent carriers. Perhaps the most telling statistic is the growth rate of wireless penetration which has accelerated since the second quarter in 2010.

The below chart shows a direct correlation between the launch of new entrants and consumers joining the wireless conversation much faster than when choosing among Incumbent carriers was their only “choice.”



68. However, the competition that the Department facilitated in 2008 is nascent and fragile. Despite the positive impact the new entrants are having on the wireless market, they still only account for an estimated 1.2% market-share combined. Contrast this with the combined 94% market-share for Rogers, Bell and TELUS. Also consider the combined \$16.9 billion and \$6.9 billion the three companies earned in 2010 wireless revenue and EBITDA respectively and the tremendous imbalance between Incumbents and challengers becomes clear. The existence of emerging new entrant competitors does not equate to “healthy and robust competition” and certainly doesn't imply a level playing field exists.

69. In order for Canadians to continue to benefit from more competition in wireless in the future, Industry Canada should continue to adopt and promote policies that not only encourage competition but ensure that it is sustainable. This is the only way that competition will persist in the long-term and not be a short-lived blip before a slide back to an oligopolistic state. In the context of spectrum policy, this means designing the 700 MHz auction in a way that again makes the acquisition of spectrum not only attractive but attainable for new entrants.

70. Public Mobile and the other new entrants are doing our part. Public Mobile itself has invested hundreds of millions of dollars to bring choice to Canadian consumers. We have created hundreds of new Canadian jobs directly in our offices and corporate stores and many hundreds more indirectly in our dealer stores, call centres and at the many vendors and suppliers that support our business. Furthermore and perhaps most profoundly of all, through our presence in the marketplace we are pushing the incumbent carriers to offer innovative products to their customers, multiplying the effect of our market entry; all resulting in material benefits to Canadian consumers.

7-2. Provide views, and any supporting evidence, on the impacts of government measures adopted in the AWS auctions, including the impacts on consumers and on the state of competition. In particular, what has been the impact, if any, of such measures on industry concentration, barriers to entry or expansion of services, and the availability of new or improved service offerings and pricing plans?

71. The policies adopted in conjunction with the 2008 AWS auction were a critical first step in encouraging a competitive wireless market. By setting aside spectrum for new entrants and by mandating favourable conditions of licence, Industry Canada

created the environment – for the first time in more than a decade – for new entrants and new competition in the wireless market. The results have been profound: Public Mobile and other new entrants are bringing real choice in wireless services to Canadians. Prices are lower and wireless penetration is increasing at a faster rate as consumers previously marginalized by the oligopoly incumbent carriers are joining the world of wireless conversation.

72. The new entrants have been leaders in price plan innovation, responsible for introducing the “unlimited” plan concept to the Canadian market. While truly unlimited voice and data plans have been available in the US for years, until the launch of the new entrants, incumbents offered only “unlimited... but” plans with restrictions that included time of day (i.e. calling after 9pm), day of week (weekend vs. weekday calling), calling party (i.e. unlimited to 5 friends), etc. Recognizing the popularity of truly unlimited plans, all incumbent carriers have launched various flavours of unlimited plans, principally through their flanker brands. The most extreme – and egregious example – has been Rogers’ launch of Chatr, a brand aimed firmly at limiting the growth potential of new entrants by copying their popular unlimited price plans. As a result of the pervasiveness of unlimited plans in the Canadian market, consumers now have a choice that allows them to avoid being surprised by expensive overage charges. This has played a role in increasing the rate of wireless penetration as budget-minded consumers can now talk and text as much as they want without worrying about a wireless bill blowing their monthly budget.

7-3. In light of the current conditions in the Canadian wireless service market(s), is there a need for specific measures in the 700 MHz and/or 2500 MHz auction to increase or sustain competition?

73. Moving forward towards the 700 MHz auction and beyond, the Department should continue to encourage sustainable, viable competition in the Canadian wireless services market.

74. To achieve this objective, Public Mobile submits that any carrier or carrier consortium (i.e., Bell and Telus) that holds 800 MHz spectrum should be precluded from bidding on 700 MHz spectrum.

75. In addition, any carrier holding 20 MHz or more of unused PCS, Cellular or AWS spectrum at the time of this consultation should be precluded from participating in the auction. Carriers with 20 MHz or more of unused spectrum can expand services and deploy a robust LTE offering without any need to acquire 700 MHz spectrum.

76. Lastly, an in-auction cap should be adopted and enforced for each participant in every licensed territory. The in-auction cap would prevent any one auction participant from owning more than 25 MHz of sub-1 GHz spectrum in any particular licensed territory.

77. For the reasons set out in section 7-1, Public Mobile maintains that this spectrum should be commercialized by non-incumbent carriers to deliver the Department's policy objectives. Fair and reasonable access to spectrum is the cornerstone of sustainable competition because spectrum is the key enabler for wireless companies. In evaluating options for the 700 MHz auction, Industry Canada should consider many factors:

- The current spectrum assets of existing wireless companies (Incumbents have a lot; new entrants have very little)
- The use of current spectrum assets (Incumbents have hoarded spectrum, deploying relatively little of their respective stashes)

- How spectrum has been distributed in the past (i.e. auction, allocation, etc.)
- Commercial relationships between carriers (i.e. Bell and TELUS' use of an integrated network)
- The relative value and importance of different types of spectrum (i.e. sub-1 GHz, AWS, 2500 MHz)

78. The incumbent carriers have shown time and again that they will buy up any and all available spectrum at any price to keep it out of the hands of challenger companies.

Rogers, Telus and Bell acquired virtually every licence in the AWS auction that was not set aside for new entrants. Yet, none has made any use of that spectrum. Despite probable protestations to the contrary in their submissions, there is no reason to believe that they will not do this again in the 700 MHz auction if allowed to by Industry Canada.

79. If we look back again to the Incumbents' submissions for the AWS auction consultation in 2008; we see a misleading conflation of "need" and "want;"

Rogers:

"...Rogers believes that it has no option but to participate in the AWS auction in order to acquire sufficient spectrum to continue evolving its network to support new broadband services, to compete effectively in the Canadian wireless market..."¹⁴

Bell:

*"It would not be an exaggeration to say that AWS spectrum is one of the most important building blocks in the future of wireless communication. The technologies to be deployed will have the capacity to handle heavy loads of data transmission at very fast speeds."¹⁵
"If we were to buy more than we need, we would be doing a disservice to shareholders by stranding capital that could be put to better use in other aspects of our business."¹⁶*

TELUS:

"In a competitive industry such as the Canadian wireless mobile industry, such behaviour as spectrum hoarding will only result in increased cost to that party versus their competitors. In other words, it is not rational behaviour and further would not be tolerated by that company's investors, debt holders or share holders. Simply put, in a competitive market place such as Canada's mobile wireless market place, there is no economic incentive for any of the incumbents to act in this manner and many clear disincentives to do so."¹⁷

¹⁴ Ibid, Note 2 at p.38.

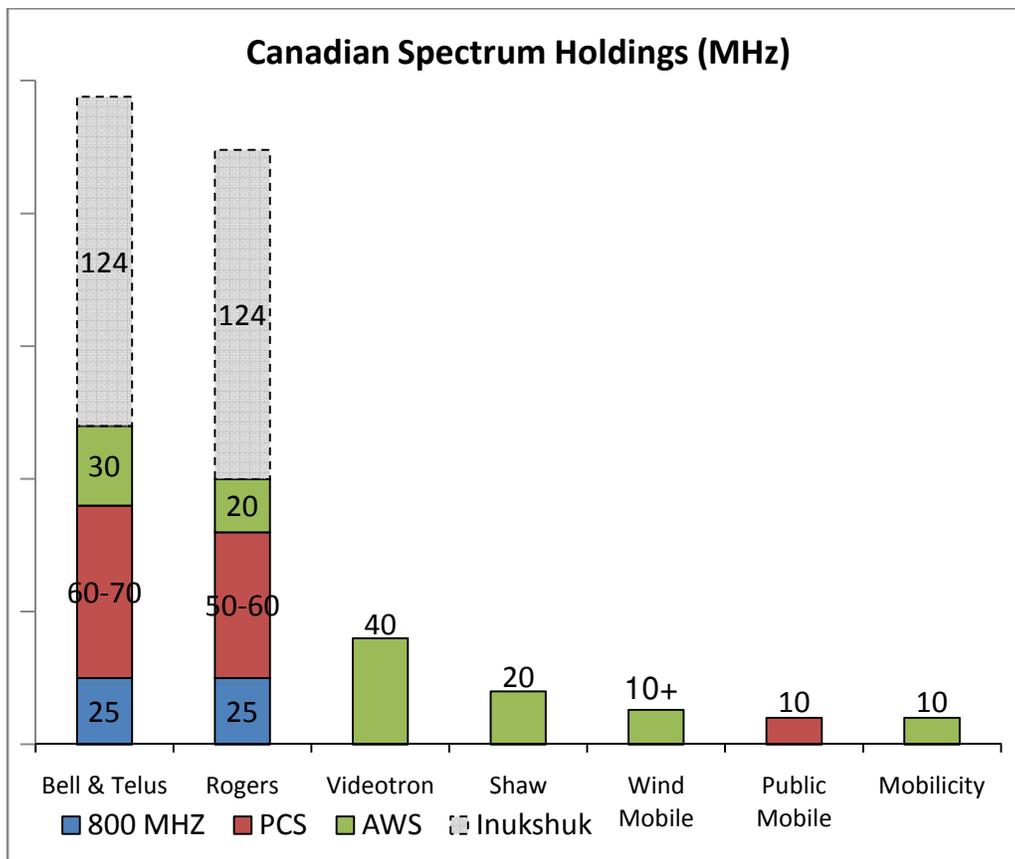
¹⁵ Ibid, Note 4 at p.10.

¹⁶ Ibid, Note 4 at p.13.

¹⁷ Ibid, Note 3 at p.59.

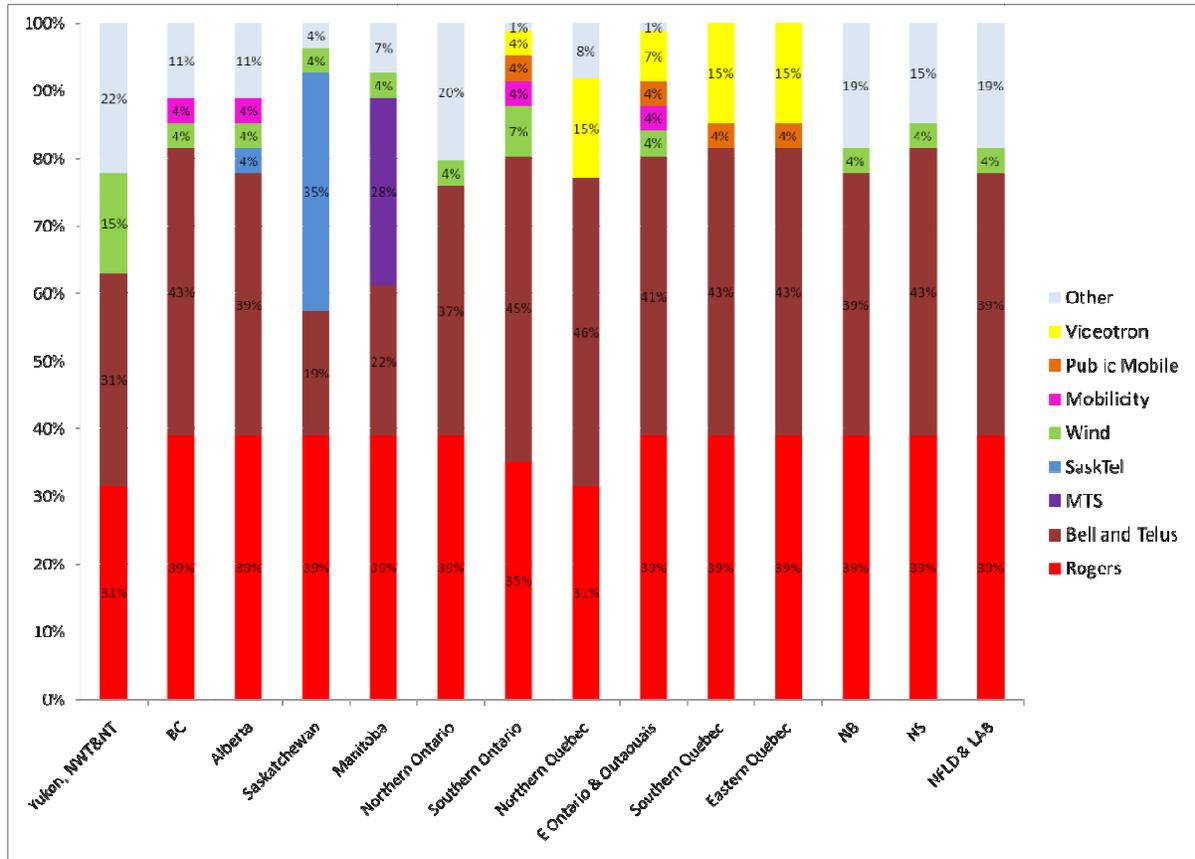
80. Rogers, Bell and TELUS all describe their “need” for new spectrum, however they have not used the AWS spectrum they acquired in the 2008 AWS auction. Instead they have hoarded AWS spectrum (and 2500 MHz spectrum), demonstrating that they will always be prepared to pay more to keep spectrum out of the hands of competitors than what the competitors are capable of paying to commercialize it. The Department must create and enforce policy that precludes hoarding.

81. Rogers, TELUS and Bell collectively hold an inordinately large amount of spectrum (no matter whether compared to their competitors in Canada or incumbents in other countries), including the 800MHz spectrum that was gifted to them.



82. Additionally, Rogers, Bell and TELUS are the predominant spectrum holders by regions with close to 80% of total spectrum across all markets, meaning they don't just

control any one market, but every single Canadian market with the exception on Manitoba and Saskatchewan. Furthermore, Bell and TELUS each hold significant spectrum in every market nationwide (except Saskatchewan and Manitoba) but have decided not to build out their networks and instead rely on a network sharing agreement to serve their subscribers.



Other Measures Needed To Sustain Competition

83. As described in Public Mobile’s submission to the Department in the Tower Sharing and Roaming review conducted in December, Industry Canada should continue and build upon the processes, rules and the Conditions of Licence implemented in 2008 for the AWS auction. These Conditions of Licence should be extended to support the Department’s policy of encouraging competition in the Canadian wireless services

market. By limiting the Incumbent's monopoly on towers and roaming services with the suggestions below, the Department can create a more level playing field where competition is sustainable over the short, medium and long term.

84. Public Mobile would like to highlight the following initiatives we believe the Department should take regarding tower sharing:

Amend the design of the tower sharing process

85. There must be mechanisms to penalize carriers for not sharing towers. Currently there are no concrete repercussions (or any positive incentives) for the Incumbents to share their towers. In other jurisdictions, like the United States, tower sharing is seen as a commercial issue and typically not a regulatory or anti-competitive one. Industry Canada must prohibit carriers from using these anti-competitive tactics and adopt a system of penalties or incentives for carriers to create the economic persuasion to cause the Incumbents to share their towers at usable heights.

86. Another structural change that would benefit the process for all parties would be an improved mediation or other alternative dispute resolution system. Industry Canada must take a more proactive and holistic approach to dispute resolution, that way disputes would be solved in a more expeditious and equitable fashion. Possible methods to deal with this area could be through Industry Canada appointing an ombud-person or staff mediator. The Department could also direct the CRTC (which has experience with structure attachment and related future equipment loading issues) to expeditiously solve issues and disputes; thereby making the site sharing process more effective and efficient.

Clarify the administration of the process

87. The Department should also take steps to ensure an efficient way to share tower sharing information. The Department should create a central repository of data and information to assist parties understand space availability and quality on tower structures in order to assist with the mediation of disputes regarding tower sharing.

88. Along with creating a central repository of data on tower sharing, the tower sharing process must be changed from a reactive to a proactive one from the Incumbents' perspective. Currently, the Incumbents react to requests for data and as such have the ability to obfuscate and delay the tower sharing process unnecessarily. The Incumbents should be forced to provide a list of ALL towers they own, and the space available on each available for co-location. Changing the process to being one that is proactive (and not reactive) will eliminate the opportunity for the Incumbents to unduly delay and game a process which is extremely time sensitive.

89. Complementary to a renewed tower sharing process, the Department should also strengthen the new entrants' ability to efficiently and effectively build out their own new networks. Much of the conflict around tower sharing could be alleviated if the 14.9 metre height limit for temporary wooden pole structures (those that are exempt from the municipal consultation process) were to be amended to 24.9 metres.

Amend and strengthen enforcement mechanisms

90. Along with structural and administrative changes to the tower sharing process the Department must ensure workable and meaningful enforcement powers to support the process. These powers could take the form of the ability to levy administrative monetary penalties, to expropriate towers, or at a minimum to give quick and efficient direction on

an issue-by-issue basis. At the end of the day, appropriate administrative processes and an administering body must be in place to effect adherence to the Department's COL-mandated policies.

91. Public Mobile would like to highlight the following initiatives we believe the Department should take regarding roaming:

Seamless handoffs

92. Public Mobile is fully in favour on Industry Canada mandating seamless inter-carrier handoffs as soon as possible.

Extend the 5 year in territory roaming term to the duration of any awarded spectrum licences

93. In order to create business certainty and build consumer confidence in the new entrant's wireless service, the Department is urged to amend the roaming COL to extend the mandated in-territory roaming term for the durations of the licence term for any spectrum licences won at auction, including spectrum won in the 2008 AWS auction and the upcoming 700 and 2500 MHz auctions.

Establish a roaming template agreement

94. Industry Canada should mandate a template roaming agreement which could be modified "on the margins" (for reasonable commercial reasons) by the negotiating carriers. The CRTC has done this for many years with respect to its approval of interconnection agreements. It is Public Mobile's submission that many of the common

commercial terms of roaming arrangements are standard and generally accepted, and could be formalized in a standard template agreement.

Clarify terms in the current COL moving forward

95. Public Mobile has found that the definition and use of the term “commercially reasonable” is not clear to all parties. This term plays a major role in the COLs, but has been very difficult to rely on during negotiations. Industry Canada should undertake to define what is “commercially reasonable” (at least for significant commercial elements) in a way that it cannot be modified by the Incumbents to the undue disadvantage of new entrants like Public Mobile.

Regulate blocking in-market calls (“home-on-home”)

96. Public Mobile submits that the Department should direct Incumbents to provide new entrants the same advantages that they provide to themselves. It is imperative that the Department mandate the blocking of in-market calls between the Incumbents and the new entrants.

7-4. The Government of Canada has undertaken a consultation on potential changes to the foreign investment restrictions that apply to the telecommunications sector. How would the adoption of any of these proposed changes impact your responses to the questions above?

97. Public Mobile submits that foreign investment restrictions should be liberalized or eliminated. We believe that eliminating or liberalizing the current ownership and control restrictions in Canada would be positive for both the Canadian wireless industry and the

average Canadian consumer. However, we submit that any changes to foreign investment restrictions would not change our responses to any of the questions above.

98. Public Mobile submits that regardless of the ownership and control regime, the Incumbents will pay more to keep new entrants out of the wireless services market or from acquiring additional spectrum than any new entrant, foreign or domestic, will pay to purchase spectrum. We believe that the Incumbents will be prepared to pay up for any and all available spectrum, convincing themselves that the blocking value outweighs the cost of buying and warehousing the spectrum.

7-5. If the Department determines that there is a need for measures to promote competition, which of the above mechanisms (CAP/SET ASIDE) would be most appropriate and why should this mechanism be considered over the other? Comments should also indicate if further restrictions should apply so that policy objectives are met, for example, over a given time period?

99. To expand upon the need for measures described in section 7-3 above, Public Mobile believes that Industry Canada should adopt specific measures for the 700 MHz auction in order to further the objective of sustaining competition. As explained earlier, while competition is alive in the Canadian wireless market it is fragile. In order to prevent the re-monopolization of the market, and in order to encourage sustainable competition in the Canadian wireless services market concrete steps must be taken to ensure that new entrants have access to 700 MHz spectrum.

Set-aside Spectrum

100. It is Public Mobile's position that all 700 MHz spectrum should be set-aside for bidders who do not currently hold 800 MHz in the same region. For the purposes of

defining set-aside eligibility, Bell and TELUS must be considered as a single entity because of their network sharing agreement which is effectively a spectrum sharing agreement.

101. Creating a set-aside in this manner will ensure that competitive carriers will hold and commercialize valuable sub 1000 MHz spectrum as opposed to it being purchased and hoarded by incumbent carriers already holding 800 MHz spectrum.

102. Furthermore, any carrier holding 20 MHz or more of any unused PCS, Cellular or AWS spectrum at the time of this consultation should be precluded from participating in the auction. Carriers with 20 MHz or more of unused spectrum can deploy a robust LTE offering without acquiring 700 MHz spectrum. Allowing carriers with 20 MHz or more of unused spectrum to bid on and acquire 700 MHz will only perpetuate the hoarding of spectrum to the detriment of Industry Canada's policy objective to encourage sustainable competition.

Regional Caps

103. In addition to set-aside spectrum based on 800 MHz holdings, Public Mobile submits that no bidder should be allowed to acquire more than 25 MHz of 700 MHz spectrum in any given licence region. This added measure would ensure that every market in Canada will have at least four holders of valuable sub 1000 MHz spectrum.

104. The above auction framework will ensure that valuable sub-1000 MHz spectrum will be distributed among multiple carriers in each region. This will be an important and critical step to encouraging sustainable competition.

105. Furthermore, there are significant differences between the 4 blocks of commercializable spectrum that must be considered. The Lower A block is adjacent to TV channel 51, which can create interference between the broadcasting use and handsets. It is also adjacent to the Lower E block which, depending on the use, can also create interference issues. This poses implementation risks and challenges for acquirers of A block spectrum.

2500 MHz Auction

106. Given that the Incumbents, and in particular Rogers and Bell through their Inukshuk partnership, are being mandated to return some of their 2500 MHz spectrum because they hold all of it, it is illogical to suggest anything other than a total set-aside for 2500 MHz spectrum as an acceptable auction framework. Public Mobile will elaborate further on our position vis-a-vis the 2500 MHz auction when Industry Canada launches its formal consultation process, however our stance will likely be analogous to the 700 MHz: set-aside spectrum based on current 2500 MHz holdings.

7-6. (a) If the Department were to implement spectrum aggregation limits (caps): Should the cap apply to the 700 MHz band only or be broader?

- a. (ii) What should the size of the cap be?**
- b. (iii) Should bidders and their affiliates or associates share the cap?**
- c. (iv) How long should the cap remain in effect?**

Should the cap apply to the 700 MHz band only or be broader?

107. If Industry Canada decides to implement spectrum aggregation limits, the cap should apply to all sub-1000 MHz spectrum. This would result in a similar outcome to Public Mobile's proposed set-aside in 7-5.

What should the size of the cap be?

108. Assuming the cap is applied on a sub-1000 MHz basis, the cap should restrict all existing holders of 800 MHz (25 MHz blocks) from bidding on 700 MHz spectrum.

Public Mobile also advocates a 25 MHz cap on acquiring 700 MHz for participating carriers in a given region.

Should bidders and their affiliates or associates share the cap?

109. Yes, bidders and their affiliates should have to share the cap. For example, Bell and TELUS should be constrained by a single spectrum cap given their current network/spectrum sharing arrangement.

How long should the cap remain in effect?

110. Public Mobile's opinion is that the principal objective in using spectrum aggregation limits is to ensure fair and reasonable allocation of spectrum for bidders in the 700 MHz spectrum auction itself. While we can conceive of useful reasons for a cap to remain in effect after the auction, we would need to see a specific proposal to comment on the appropriateness of a longer lasting cap.

(b) If the Department were to implement a set-aside in the 700 MHz auction:

- d. Who should be entitled to bid in the set-aside block(s) and should the entitled bidders be restricted to bidding on the set-aside only?**
- e. How much spectrum should be set-aside and which block(s) should be set-aside?**
- f. If the set-aside were to include multiple blocks of spectrum, should they be contiguous?**
- g. What restrictions should be put in place to ensure that policy objectives are met (for example, should trading of the set-aside spectrum be restricted for a given time period)?**

Who should be entitled to bid in the set-aside block(s) and should the entitled bidders be restricted to bidding on the set-aside only?

111. As articulated in 7-5, any eligible bidder who does not hold sub-1000 MHz spectrum in a given region should be eligible to bid on spectrum in that region.

Furthermore, eligible bidders must also hold less than 20 MHz of unused Cellular, PCS or AWS spectrum in or to be entitled to bid on set-aside spectrum. Whether entitled bidders can bid on non-set-aside spectrum presumes that there will be non set-aside spectrum, a framework that Public Mobile does not advocate. However, in the event that this is the case, then Public Mobile's position is that any bidder should be allowed to bid on non set-aside spectrum.

How much spectrum should be set-aside and which block(s) should be set-aside?

112. All 700 MHz spectrum should be set aside (particularly all of the paired spectrum). As articulated in 7-5, this is the only way for a reasonable number of carriers per region to emerge from the auction with sub-1000 MHz (including the incumbent's current 800MHz holdings). This is the only way to encourage sustainable wireless competition in Canada.

113. Unlike the AWS spectrum band, which was comprised of 90 MHz total spectrum allocated as one contiguous band and split into 6 blocks for licencing, the US band plan (the only feasible option for Canada) is much more complex. Until the public safety issues of the Upper D block are resolved, there are practically only 4 available paired blocks of commercializable spectrum. – three 12 MHz Lower 700 MHz blocks (A, B and C) and one 22 MHz Upper 700 MHz block (Upper C).

114. Even with a complete set aside, there will remain at least 6 existing mobile new entrants (3 pure-play new entrants and 3 cable companies), along with other operators selling non-mobile services (such as Barret Xplore and Terago networks), other current spectrum holders (e.g., Novus Wireless and Blue Canada), and potentially others seeking to enter the market through this auction. All bidding in a highly competitive auction for a maximum of four licences. Given the size of the three Lower blocks, there will be additional demand by bidder to secure two adjacent blocks and thereby enable a broader network deployment.

115. Furthermore, the characteristics of each of these spectrum blocks is unique, making it infeasible to decide how to assign specific blocks. The Lower paired blocks are all contiguous, but not identical. Each has its own potential issues with interference from adjacent spectrum licenced for different purposes. The technology development and ecosystem supporting each of the 700 MHz blocks is different. It is not possible to choose some licences for set aside, and protect others for the incumbents, without limiting competition in the wireless market and, effectively, imposing technology and handset decisions on the new entrants.

If the set-aside were to include multiple blocks of spectrum, should they be contiguous?

116. The set-aside spectrum should include all of the available licences.

What restrictions should be put in place to ensure that policy objectives are met (for example, should trading of the set-aside spectrum be restricted for a given time period)?

117. As with our response to 7-6 (a) (iv), Public Mobile's opinion is that the principal objective in using spectrum set-aside is to ensure the continuation of the benefits of

sustainable competition through fair and reasonable allocation of spectrum for bidders in the 700 MHz spectrum auction itself. While there may be useful reasons for restrictions on trading of set-aside, we would need to see a specific proposal to comment on the appropriateness.

7-7 . Are there other mechanisms that should be considered and, if so, how should these be applied?

118. For the purposes of the 700MHz auction design, rules and policies, fairness and expediency requires that Bell and TELUS be treated as one entity given the contractual arrangement that exists between the parties. Bell and TELUS have operated under a network sharing agreement since 2001, enabling them to combine their complementary network assets to maximize coverage and conserve capital. This agreement amounts to a spectrum sharing agreement, effectively enabling them to warehouse complementary spectrum by piggy-backing on each other's networks.

119. Their own press releases lay out their plan quite clearly;

Bell:

*"Bell's transition to the global 4G LTE standard with a combined EVDO and HSPA network path aligns us with more than 30 major carriers worldwide planning a similar move to LTE," said Stephen Howe, Senior Vice President, Wireless Network and Chief Technology Officer for Bell Mobility. "This broad global technology ecosystem will mean a fast, efficient and cost-effective network transition to 4G LTE, and access to the broadest possible range of next-generation phones and data services. Bell will greatly reduce time to market for its network overlay by leveraging its existing national network-sharing agreement with TELUS Corporation. The agreement was originally established in 2001 to ensure the fast delivery of and increased competition in national mobile data services, especially in rural and remote areas."*¹⁸

¹⁸ BCE Website, News Releases, "Bell announces strategic 3G wireless network investment, maximizing consumer choice in mobile data and confirming its path forward to 4G LTE wireless, October 10, 2008" <<http://www.bce.ca/en/news/releases/bm/2008/10/10/74991.html>>

TELUS:

“With the new network capability, expected to be completed by early 2010, almost all major mobile wireless handsets and devices in the world could be available to TELUS, spanning HSPA, CDMA, and iDEN networks. By adding the capabilities of HSPA, TELUS has a smoother evolution path as the world transitions to LTE....As part of its investment, TELUS has entered into a network sharing agreement with Bell, which builds on and enhances arrangements in place since 2001. The network sharing agreement allows TELUS to lower the cost, increase the speed of the build-out and gives TELUS the ability to offer the widest national coverage for HSPA, using existing 1900 MHz and 850MHz spectrum, in the shortest time possible.”¹⁹

120. The Department must treat Bell and TELUS as a single entity because they have leveraged each other's network resources in the east and west in order to provide seamless national coverage. They have built out their HSPA+ networks together, will build out their next-generation LTE network together and as such their network assets should be looked at as a combined entity.

121. Lastly, any future merger of Bell and TELUS should have as a prerequisite of approval the return of what can reasonable be considered excess spectrum assets to Industry Canada. Industry Canada would then be able to redistribute excess spectrum as means to further perpetuate sustainable wireless competition.

7-8 . The Government of Canada has undertaken a consultation on potential changes to the foreign investment restrictions that apply to the telecommunications sector. How would the adoption of any of the proposed changes affect your responses to the questions above?

122. Public Mobile submits that foreign investment restrictions should be liberalized or eliminated. We believe that eliminating or liberalizing the current ownership and control restrictions in Canada would be positive for both the Canadian wireless industry and the average Canadian consumer. However, we submit that as per the same reasons in our

¹⁹ TELUS website, news, “TELUS announces evolution to fourth generation wireless, October 10, 2008” <http://about.telus.com/cgi-bin/media_news_viewer.cgi?news_id=956&mode=2&news_year=2008>

response to question 7-4, any changes to foreign investment restrictions would not change our responses to any of the questions above.

8-1. In the above context, the Department seeks comments on challenges and specific problems affecting the deployment of broadband mobile services to low-density rural and remote areas.

123. Public Mobile has ambitions to serve rural areas. However, our current PCS spectrum would not facilitate a commercially viable deployment in the absence of government subsidy. As stated in the sections above, much of the appeal of acquiring 700 MHz spectrum is because its excellent propagation characteristics are ideal for rural deployments.

124. Public Mobile would also like to note that with the CRTC's Deferral Account decision, the Bell's HSPA network build out is being directly subsidized in rural areas.²⁰ Public Mobile and the other new entrants do not have that type of advantage to build out our rural networks, and it is only through the deployment of 700 MHz spectrum that real competition may be brought to rural areas. We are not asking the Department to rectify a CRTC decision; however we feel it is necessary to point out this additional major regulatory advantage that an Incumbent is receiving to build out their already robust network.

8-2. Is there a need for further regulatory measures or changes to existing regulatory rules (e.g. RP-19) to facilitate service deployments in rural and remote areas that remain unserved and/or underserved?

125. Public Mobile is in favour of an efficiently functioning tower sharing regime which is essential to any network build out in rural areas. RP-19 should not apply to 700 MHz

²⁰ Telecom Decision CRTC 2010-805 (<http://www.crtc.gc.ca/eng/archive/2010/2010-805.htm>) "In this decision, the Commission approves the use of deferral account funds by Bell Aliant and Bell Canada (the Bell companies) to expand broadband services to 112 communities in Ontario and Quebec using high-speed packet access (HSPA)+ wireless broadband technology. The Commission denies Bell Canada's proposed modifications to further reduce the Bell companies' deferral account balance."

in the initial licence period, AWS rules should be replicated with adjustments suggested in Public Mobile's Tower Sharing and Roaming Review submission (summarized in our response to question 7-2 of this document.)

8-3. Should the Department decide that measures are necessary, comments are sought on specific measures that could be adopted within the 700 MHz spectrum auction process to ensure further deployment of advanced mobile services in rural and remote areas (e.g. roll-out conditions, tier structure, etc.).

126. As detailed above, Public Mobile submits that no one who possesses 800 MHz spectrum, which is very similar to 700 MHz spectrum, ought to be permitted to bid on 700 MHz spectrum. Additionally, there ought to be an in-auction cap for every licensed territory. The in-auction cap would prevent any one auction participant from owning more than 25 MHz of sub 1000 MHz spectrum in any particular licensed territory.

Public Mobile is generally supportive of a policy direction that encourages the deployment of advanced mobile services in rural and remote areas. We believe that the set-aside scheme that we propose above is an important step in this regard as it would improve the likelihood of having spectrum that is ideal for rural deployment end up in the hands of carriers who actually intend to launch service rather than hoard the spectrum. In terms of additional measures, Public Mobile would be more in favour of incentives to spur rural roll-outs rather than restrictions or conditions imposed on the acquisition of spectrum at auction.

9-1. The Department seeks comments on whether there is a need for government intervention to promote open access, by increasing access by users to handsets and/or applications.

127. Public Mobile does not have a strong opinion on the issue of open access.

However we feel that if the Department is going to apply open access requirements then they must apply them to all carriers and across all spectrum.

9-2. If government intervention is needed, which of the following options should be implemented?

128. Public Mobile does not have a strong opinion on the issue of open access.

However we feel that if the Department is going to apply open access requirements then they must apply them to all carriers and across all spectrum.

10-1. The Department is considering three options to proceed with the 700 MHz and 2500 MHz bands auction processes:

129. Public Mobile submits that Industry Canada should consider a 4th option in deciding the timing of the 700 MHz and 2500 MHz spectrum auctions.

130. Dealing first with the timing of the 700 MHz auction, holding the auction in mid-2012 (or preferably later) will allow parties sufficient time to procure adequate financing to participate in what is expected to be a very expensive auction regardless of the framework chosen by Industry Canada. This timing also aligns with expected commercial material of the handset technology ecosystem needed to launch LTE service on 700 MHz.

131. Holding the auction any sooner unfairly biases the Incumbents because of their financial advantage both to participate in an auction at any time and to be able to invest hundreds of millions of dollars in spectrum and then to warehouse it while waiting for it to be commercializable.

132. As explained earlier, the propagation characteristics of 700 MHz spectrum, and 700 MHz spectrum's well demarcated road to LTE makes it especially valuable. Consequently, we anticipate prices for 700 MHz spectrum will be significantly higher than those paid for AWS spectrum – irrespective of auction framework.

133. Holding the auction earlier puts new entrants at a great disadvantage as we are now focusing our funding on establishing our brand with customers and building out our network infrastructure; both very capital intensive initiatives. If an auction were held sooner rather than later, we would have to devote already scarce funds and fundraising efforts to financing a bid for new spectrum rather than building out our network. Holding

the auction in the second half of 2012 would allow us to line up adequate funding without sacrificing our network build out and operational objectives.

134. On the issue of how to hold the 700 and 2500 MHz auctions in relation to one another, we submit that they should be held as close to one another as resources at the Department allow. If the auctions are held separately, they should be no more than 3 months apart; with the 700 MHz auction coming first (as the 700 MHz spectrum is superior and more valuable than the 2500 MHz spectrum.) The suggested timing of the auction coincides roughly with the expected mass commercialization of equipment and technology for LTE; which will be a key driver for acquiring 700MHz spectrum. Further, the 700 MHz and 2500 MHz auctions should be held together to allow for improved network planning, better and more efficient pricing of the spectrum and in order to create business certainty moving forward.