



Rogers Communications
333 Bloor Street East
Toronto, Ontario M4W 1G9
Tel. (416) 935-2525
Fax (416) 935-2523
ken.engelhart@rci.rogers.com

Ken Engelhart
Vice-President - Regulatory

April 6, 2011

Sent via email: spectrum.engineering@ic.gc.ca

Manager, Mobile Technology and Services
DGEPS
Industry Canada
300 Slater Street
Ottawa, ON
K1A 0C8

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

Pursuant to Section 12 of the above noted document and subsequent Industry Canada amendment of March 14, 2011, attached are Reply Comments of Rogers Communications Partnership ("Rogers").

The documents are being sent in Adobe PDF Version 8.0. Operating System: Microsoft Windows XP.

Yours very truly,

A handwritten signature in blue ink, appearing to read "Ken Engelhart".

Kenneth G. Engelhart
Senior Vice President – Regulatory
KE/

Attach.

Reply Comments of
Rogers Communications Partnership

Consultation on a Policy and Technical Framework for the 700
MHz Band and Aspects Related to Commercial Mobile Spectrum
(SMSE-018-10)

April 6, 2011

TABLE OF CONTENTS

Executive Summary	3
Introduction	6
Need for Additional Spectrum	6
Need for 700 MHz Spectrum	14
Band Plan	16
Guard Plans	17
Tier Sizes	18
Auction Timing	19
Competition in the Canadian Wireless Market	20
The Canadian Market is Hyper-Competitive	20
Market Concentration	22
Penetration and Mobile Usage Rates	24
EBITDA Margin	25
Average Revenue Per User	26
Impact of New Entrants	27
No Need for Additional Measures – Set Asides and Caps	29
No Need for Further Tower Sharing Measures	35
No Need for Further Roaming Measures	38
Dispute Resolution	39
Duration of In-territory Roaming	40
Rates	42
Seamless Handover	43
The Future of Facilities-based Competition	44
Rural Deployment	45

Executive Summary

1. For the last 25 years, Rogers has been at the forefront of the Canadian telecommunications industry, building one of the most advanced and innovative wireless networks in the world and helping to drive the Canadian economy. We have invested over 10 billion dollars as we moved from analog, to TDMA, to GSM, to HSPA+ and shortly, to LTE, never allowing the old technology to cool before delivering the next generation. We are a technological leader, often offering new products and services first in Canada, often first in all of North America and sometimes first in the world. And finally, we have strived to deliver this innovation to all Canadians in all regions, deploying in every province and covering 95% of the Canadian population.
2. Rogers' ability to continue delivering the most advanced wireless services across Canada will be greatly enhanced by access to 700 MHz spectrum. Without it, we could not economically deploy LTE outside of large urban areas, the quality of our LTE service in large urban areas would suffer, and we potentially would not have access to an entire ecosystem of network equipment and handsets. The 700 MHz spectrum plays a crucial role in Rogers LTE plans which is why, unlike many of the new entrants, Rogers supports rollout requirements. We intend to deploy 700 MHz spectrum in the short term unlike the pure-play new entrants, who accuse us of hoarding, yet refuse to make any commitments to use the spectrum themselves.
3. Contrary to the claims made by the Seaboard Group, LTE will not be offered in the 850 MHz range in the near term. The 700 MHz spectrum is therefore crucial to obtain access to the next generation of network equipment and handsets, which are already being deployed in the U.S. market. Rogers 850 MHz spectrum is also fully utilized delivering GSM and HSPA+ and cannot be re-farmed for other technologies. The 700 MHz spectrum is therefore a special opportunity for all carriers.
4. Capacity limits are a true threat in the face of continued growth in wireless data. As more and more of Rogers' 9 million customers adopt smartphones and data devices, such as USB sticks, embedded laptops and tablets, our need for spectrum grows. The

recent merger announcement by AT&T and T-Mobile illustrates the lengths established carriers will take to improve their spectrum positions in light of the current and expected data demand.

5. Many parties have criticized Rogers for its spectrum holdings. Rogers has purchased additional mobile spectrum through auctions and by means of acquisitions in order to deliver next generation wireless services, including LTE. As a company that is in the wireless business for the long term, Rogers took the initiative and the risks to make several investments in spectrum at a time when other parties, including new entrants, were free to avail themselves of many of these opportunities. Yet they elected to pass on these opportunities and declined to take the risk when additional spectrum was available.

6. Spectrum set-asides and caps are not necessary in Canada. With the launch of Bell and TELUS' HSPA+ network and the addition of the new entrants, Canada's wireless industry is very competitive. We have one of the least concentrated wireless industries in the world providing the fourth lowest average revenue per minute (ARPM) in the G8. The new entrants also include some of the largest and most profitable communications companies in Canada while Wind is now part of the 5th largest wireless carrier in the world with 178 million subscribers. They all possess the financial resources to independently compete in Canada. Non incumbents have successfully obtained non-set aside spectrum in every auction in Canada to date, and there exists effective competition for the 700 MHz auction as well.

7. The use of a set-aside can also impair the auction process. As Rogers, Bell and TELUS all illustrated, the set-aside created gaming opportunities that were exploited by almost all the new entrants, removing hundreds of millions of dollars from the wireless industry.

8. There is no need to adjust the mandatory tower sharing regime. Rogers has complied with its tower sharing obligations, making hundreds of offers to share.

Unfortunately, some new entrants have undermined the system. They have either barely attempted to share, making only a handful of requests, or instead flooded us with frivolous requests which are subsequently cancelled. In both cases, several new entrants have not made honest attempts to share Rogers' towers and are responsible for the lack of sharing that has occurred.

9. There is no need to amend the mandatory roaming regime either. Rogers executed several roaming agreements without the need for arbitration even though there was ample opportunity to do so. The terms and rates are consistent with commercial rates. The calls for seamless handover run contrary to roaming practices around the world where regulators and carriers have determined the practice too complex and costly. Further, there is no need to extend the current 5 year in-territory roaming requirement, or create new ones for 700 MHz or 2500 MHz, as all the new entrants have had the opportunity to deploy their networks within the 5 years and should not now be rewarded for voluntary delays. Such an extension would remove any incentive for the new entrants to expand their networks and would contradict the Department's long standing policy encouraging facilities based competition in Canada.

10. Finally, the 700 MHz spectrum is a key asset to bridge the digital divide between urban and rural Canadians. With its propagation qualities, it can make the delivery of LTE and other advanced broadband wireless services affordable outside the cities and into the remote parts of Canada. The new entrants claim to need 700 MHz spectrum to expand their service into rural areas yet most of them oppose any measures to require it. Rogers however urges the Department to consider a roll-out requirement that ensures the benefits of 700 MHz spectrum extends to as many Canadians as possible.

11. Industry Canada should therefore hold an open auction for the 700 MHz spectrum. The only measure the Department should consider is a roll out requirement, particularly one that ensures deployment outside the major urban centres, to ensure the full potential of the 700 MHz spectrum is not wasted.

Introduction

12. The following is Rogers' reply to the comments received by Industry Canada from interested parties on Gazette Notice SMSE-018-10 "*Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*".

13. Rogers stated its position on all of the issues raised in the Consultation Paper in its initial comments of February 28, 2011. This reply is therefore limited to comments on proposals made by other parties.

Need for Additional Spectrum

14. In our comments, Rogers demonstrated that we require additional mobile spectrum to satisfy our 9 million customers' demand for faster mobile broadband services so that they can be more productive, access the information and content they want, and stay in touch, anytime, anywhere, on any device. We also explained that we will use additional mobile spectrum to seamlessly introduce LTE services.

15. Rogers notes that comments that have been filed by several parties demonstrate that additional mobile spectrum is required to satisfy the dramatic growth in demand for mobile broadband services. Specifically, Bell, TELUS, Wind, MTS Allstream, Mobilicity, Public Mobile, Quebecor, SaskTel, Shaw, and the RABC have all made the case that additional mobile spectrum capacity is generally required. In support of their views, many of these parties have cited U.S. Federal Communications Commission (FCC) projections, widely recognized industry forecasts, as well as the mobile broadband traffic growth that they have observed on their respective networks.

16. For example, Bell noted that average monthly smartphone data usage has jumped from 15 MB in 2008 to 300 MB in 2010.¹ TELUS noted that its customers' total mobile

¹ Bell Comments, para 19.

data usage grew by 449% between 2008 and 2010.² The RABC has noted the extent to which mobile broadband traffic is growing and the efforts that are currently being made in the U.S. to urgently address this challenge by identifying additional mobile spectrum bands than can be licensed in the near term.³

17. A number of new entrants have claimed that incumbents such as Rogers currently hold more mobile spectrum than they need. They argue that Rogers serves fewer customers per licensed MHz of spectrum than U.S. carriers. These parties have cited a Seaboard report titled “Over the Rainbow” in support of their claims.

18. We would dismiss the arguments by noting the following. First, certain U.S. operators were widely reported in the 2009 and 2010 timeframe as experiencing service quality issues due to inadequate capacity to support the dramatic growth of mobile broadband services.⁴ This fact was referenced by Mobilicity in its comments.⁵ The affected operators took a number of steps to offset these issues. Since that time, as noted by TELUS in its comments, these and other U.S. operators have urged the U.S. FCC to take steps to identify and license additional mobile spectrum so that they can cope with the ongoing dramatic growth of mobile broadband traffic.⁶ More recently, AT&T has announced that it has reached an agreement to purchase T-Mobile USA for \$39 billion in order to augment its mobile spectrum capacity.⁷ The agreement, if approved by U.S. regulators, will see AT&T acquire up to 53 MHz of additional mobile spectrum in the top 100 U.S. markets.⁸ It is clear therefore that, irrespective of how their mobile spectrum holdings currently compare to Rogers, the U.S. operators do not

² Telus Comments, para 79.

³ RABC Comments, para 4.1 - 4.7.

⁴ See for example Fortune Magazine, “AT&T Dropping More Calls than Ever”, (May 5, 2010). <http://tech.fortune.cnn.com/2010/05/05/att-dropping-more-calls-than-ever/> and “A Problem? AT&T’s Wireless Network is the Punchline”, (May 10, 2010).

<http://www.fiercewireless.com/signup?sourceform=Viral-Tynt-FierceWireless-FierceWireless>

⁵ Mobilicity Comments, para 38.

⁶ Telus Comments, para 81.

⁷ *AT&T to Acquire T-Mobile USA from Deutsche Telekom*, March 20, 2011.

<http://www.att.com/gen/press-room?pid=19358&cdvn=news&newsarticleid=31703&mapcode=corporate|financial>

⁸ *T: Announces Intention to Purchase T-Mobile USA*, Wells Fargo Equity Research, March 21, 2011.

view their respective spectrum positions as being ideal and they are seeking more spectrum. If anything, this is an endorsement of the prudent spectrum investments made by Rogers.

19. Second, as the Department knows, in terms of adding capacity, the main alternative to acquiring more spectrum is to implement additional cell sites. If U.S. carriers are operating with less spectrum than Rogers, it means that they have implemented more cell sites. In their analysis, Seaboard and the parties have disregarded the significant cost disadvantage that is faced by Canadian operators compared to their U.S. counterparts. They have ignored the fact that operators in the U.S. are able to recover the cost of adding cell site capacity from ten times more customers than Canadian operators such as Rogers. Obviously, with significantly fewer customers and revenues, Rogers is less able to fund the implementation of additional cell sites to the same extent as its much larger U.S. counterparts. Nonetheless, Rogers is dramatically increasing its tower density, despite our spectrum holdings.

20. In any event, Rogers' astute spectrum planning and foresight have allowed it to avoid the congestion and poor service that, as outlined above, were widely reported in the U.S. For example, Rogers' introduction of data-hungry consumer devices such as the iPhone did not result in the significant frustration and inconvenience experienced by U.S. consumers. Indeed, Rogers' customers have directly benefited from Rogers' spectrum planning in the form of superior service quality and mobile data speeds.

21. With respect to the evidence that many of the new entrants have included in their comments regarding the extent to which operators in the U.S., and elsewhere, hold mobile spectrum, Rogers submits that these parties are playing fast and loose with the facts. For example, in comparing Rogers' spectrum holdings with that of U.S. operators, Mobilicity has used data that was prepared in 2007, and therefore it has significantly understated the holdings of AT&T. For example, Mobilicity claimed on pages 13 and 14 of its comments that AT&T holds 45 to 65 MHz of mobile spectrum. However, the February 2011 report by Lemay-Yates that was attached to Rogers'

comments indicated that AT&T holds 95 MHz of mobile spectrum, as well as an additional 12 to 24 MHz of paired 700 MHz spectrum, and a further 12 MHz of unpaired 700 MHz spectrum, for a total of up to 131 MHz.⁹ Likewise, while Mobilicity asserted in paragraph 18 that German operator T-Mobile holds 38 MHz of mobile spectrum, the Lemay-Yates report stated that T-Mobile holds 90 MHz of spectrum, in addition to another 65 MHz of spectrum that it recently acquired in an auction, for a total of 155 MHz of spectrum.¹⁰

22. For its part, Public Mobile has grossly overstated the holdings of Rogers, Bell and TELUS in the chart included in paragraph 81 of its comments. While the chart suggested that Rogers, Bell and TELUS each hold 124 MHz of 2500 MHz spectrum, this is simply untrue. In fact, in some geographic areas, Inukshuk holds between 40 and 80 MHz of paired spectrum in the 2500 MHz band and between 20 to 40 MHz of unpaired spectrum. This spectrum is shared by Rogers and Bell and their individual entitlement would amount to only 50% of the total spectrum licensed to Inukshuk.

23. The Seaboard report cited by Mobilicity, Quebecor, Shaw and Wind is similarly flawed and misleading. For example, Seaboard's analysis ignored 350 MHz and 130 MHz of spectrum that was auctioned in 2010 in Germany and the Netherlands, respectively. This significant omission is buried in a footnote in the Seaboard report¹¹, and it is nowhere to be found in the comments filed by two of the three parties that reference this particular part of Seaboard's analysis.¹² The same year-old Seaboard analysis omitted 700 MHz spectrum that Verizon currently holds and is using to operate its LTE network that was launched in 2010. We would also note that, when comparing the spectrum holdings of Canadian incumbents and new entrants, Seaboard and the parties that have referenced the Seaboard report used spectrum holdings weighted by

⁹ Lemay-Yates Associates, "*The Impact of 700 MHz Spectrum on LTE Deployment and Broadband in Canada*", (February 2011), p. 44.

¹⁰ Ibid.

¹¹ Quebecor Comments, p. 12.

¹² See Mobilicity Comments, pp. 19-20 and Globalive Comments, para 62.

population.¹³ As noted in our comments, this exaggerates the spectrum holdings of the incumbents and understates the holdings of new entrants. However, when comparing Canadian incumbents with their U.S. and European counterparts, these parties did not use spectrum holdings weighted by population.¹⁴ The use of weighting here would dramatically increase the holdings of foreign operators relative to Canadian operators. The presentation of this evidence by these parties is inconsistent, misleading and transparently self-serving.

24. In any event, the Lemay-Yates report filed with Rogers' comments clearly demonstrated that the mobile spectrum holdings of Canadian operators are consistent with the holdings of operators in other countries.¹⁵

25. Moreover, Rogers demonstrated in its comments that it is a much more efficient user of spectrum than all of the AWS new entrants combined, since Rogers serves many more customers per MHz of spectrum than all of the new entrants. Indeed, some of the new entrants such as Shaw and Eastlink have not started to use any of their AWS set-aside spectrum, while Quebecor has not used any of its AWS spectrum in the Toronto Tier 3 service area. Shaw has stated in its comments that it will not use any of its AWS set-aside spectrum until 2012. Ironically, despite their underutilization of AWS spectrum, these same parties have argued that Rogers should be restricted in its ability to acquire 700 MHz spectrum on the basis that it has not used its AWS spectrum. As noted in our comments, Rogers is using its entire inventory of available spectrum to implement LTE services.

26. For its part, Quebecor urged the Department to ensure that the incumbents have utilized specific spectrum optimization techniques before they are permitted to bid for 700 MHz and 2500 MHz spectrum. Rogers employs a wide variety of spectrum efficiency measures that were detailed in the confidential comments that were filed by

¹³ Seaboard, *“Over the Rainbow”*, Exhibit 6 and Exhibit 7.

¹⁴ *Ibid.*

¹⁵ Lemay-Yates, *“The Impact of 700 MHz Spectrum”*, (February 2011), Table 8.

Rogers. Moreover, as noted above, Rogers is demonstrably a more efficient user of spectrum than all of the new entrants, including Quebecor, when considered on a customer per MHz basis. Using this particular metric, Quebecor is found to be by far the least efficient user of spectrum amongst all of the new entrants that have launched services using their AWS spectrum.

27. If spectrum efficiency will be used to determine which carriers should be permitted to bid for additional spectrum in the upcoming spectrum auctions, it is the AWS new entrants, not Rogers that would fail this test.

28. These parties have also asserted that U.S. operators have implemented six-sector antenna arrays, and they claim that Canadian incumbent operators are less efficient because they use three-sector sites. In fact, while sectorization is a measure that Rogers routinely utilizes in order to add spectrum capacity to its network, this measure is subject to a law of diminishing returns, especially with regard to spread spectrum applications used to provide mobile data services. As more sectors are added to a given site, the extent to which usable spectrum capacity can be derived diminishes as a result of the overlap that occurs at the edge of each sector. While none of the new entrants have provided any details regarding the use of 6-sector sites by U.S. carriers, Rogers strongly believes that it is intended for additional voice capacity rather than the more pressing matter of data capacity. It would appear therefore that the claims of these parties are irrelevant in the context of the present consultation regarding the need for additional spectrum capacity to cope with the dramatic growth of mobile broadband services.

29. Several AWS new entrants have complained that incumbents have an unfair advantage because of the amount of spectrum that they hold, some of which was licensed through comparative review processes. Some of these parties have also argued that incumbents have had a significant head start in the mobile market. In fact, incumbents such as Rogers undertook significant financial risks when they initially invested in cellular services in 1985, before the market even existed, and again in 1995,

when the PCS market was in the earliest stages of development. In addition, as noted in the report by Dr. Jeffrey Church which was attached to our comments, Rogers sustained losses for two decades before finally realizing what turned out to be a relatively modest rate of return.¹⁶ None of the new entrants were prepared to take the same risks as Rogers in 1985 and 1995.

30. We would also note that, more recently, Rogers has purchased additional mobile spectrum through auctions and by means of acquisitions and inter-company spectrum transactions. Rogers chose to make the following investments to acquire additional spectrum capacity over the past several years.¹⁷

Transaction	Cost	Bandwidth	Band
2001 PCS Auction	\$394 million	10 to 20 MHz	1900 MHz
2004 Microcell Spectrum	\$1.4 billion	30 MHz	1900 MHz
		20 MHz	2500 MHz
2008 AWS Auction	\$1 billion	20 MHz	1700/2100 MHz
2009 Look TV Spectrum	\$80 million	20 MHz	2600 MHz
2010 Craig Wireless Spectrum	\$80 million	20 MHz	2600 MHz
2010 YourLink Spectrum	\$14 million	20 MHz	2600 MHz

31. Any party, including Shaw and Videotron, was free to avail itself of these opportunities to purchase mobile spectrum and yet they elected to pass on every one, except the AWS auction. At the very least, any of these parties could have afforded the relatively less costly option of purchasing the 2600 MHz spectrum that was sold by Look TV, Craig Wireless and YourLink, but they passed on every one of these opportunities. Now these parties are crying that they are “spectrum poor” and “disadvantaged” and they are seeking government assistance to offset their failure to take the risk and make the required investments when this spectrum was available.

¹⁶ Dr. Jeffrey Church, “*Spectrum Policy as Competition Policy: A Good Choice for Canada?*”, (February 2011), para 134-135.

¹⁷ In the case of the Look, Craig and YourLink transactions, the cost and bandwidth are shared by Rogers and Bell. 2500 MHz bandwidth is also shared by Rogers and Bell.

32. Several new entrants have also accused incumbents, such as Rogers, of hoarding spectrum and they have asserted that Rogers is not using its licensed AWS spectrum. On the contrary, Rogers is using all of its licensed spectrum. As we noted in our comments, Rogers is using all of its 850 MHz cellular and 1900 MHz PCS spectrum to provide GSM and HSPA services to its 9 million customers. Rogers is using all of its available spectrum to launch LTE services and Rogers executives have publicly stated that Rogers will use a multi-band approach for the implementation of LTE. As a prospective winner of 700 MHz spectrum, Rogers is fully prepared to use this spectrum to extend LTE services beyond urban areas and to unlock the economic and social benefits associated with this valuable resource. In support of this commitment to use 700 MHz spectrum, Rogers proposed in its comments that the Department should impose roll-out requirements so that successful 700 MHz bidders will not be permitted to hoard precious 700 MHz spectrum.

33. It is telling that the parties that are most vocal in accusing Rogers and other incumbents of hoarding spectrum, including Wind, Mobilicity and Public Mobile, are silent in their comments with respect to the need for roll-out requirements. Instead, these parties have provided hollow assurances that they intend to extend their service offerings to rural areas. The fact that they are unwilling to back up their claims by proposing the use of roll-out requirements is proof positive that they have no intention of investing in coverage beyond urban areas. Their true intentions are also clearly seen in the fact that they requested an extension to the 5-year in-territory roaming requirement that was established in the AWS policy framework, and that they have proposed a 10-year in-territory roaming requirement for the 700 MHz policy. Their statements that they will expand their networks are inconsistent with their request to extend the in-territory roaming requirement.

34. The Department should also remember that these are the same parties that have publicly stated that they fully expect to undergo consolidation in the short term. It is likely that these parties will simply acquire 700 MHz spectrum so that they can sell it, or themselves, for a profit at a later date to enrich themselves and their shareholders. The

Department must not allow the vitally important 700 MHz spectrum resource to be used as a strategy by spectrum speculators.

Need for 700 MHz Spectrum

35. In our comments, we stated that Rogers wants 700 MHz spectrum to implement ubiquitous LTE services in urban and non-urban areas. In addition, an advanced technology ecosystem is developing for the 700 MHz band in North America and 700 MHz spectrum is desirable so that we can be part of that ecosystem and provide our customers with the best and most advanced LTE devices at the lowest cost.

36. Several parties have acknowledged that there is a developing LTE ecosystem for the 700 MHz band, and they have highlighted the importance of this ecosystem to Canadians and the mobile operators that are planning to implement LTE services.

37. As Rogers stated in its comments, it will use 700 MHz spectrum to implement ubiquitous LTE services in urban, suburban and rural areas. Unless Rogers has access to this low-band spectrum, it will not be able to implement LTE services outside large urban areas. Rogers also requires this low-band LTE spectrum to provide a consistent and reliable underlay of LTE coverage in urban and sub-urban areas, including in-building coverage. Lastly, we require 700 MHz spectrum to add capacity to our network so that we can satisfy the significant and growing demand for mobile broadband services.

38. Moreover, in our comments we explained that Rogers is using all of its licensed 850 MHz cellular and 1900 MHz PCS spectrum to provide GSM and HSPA services to its 9 million customers. We also noted one of the conclusions of the Lemay-Yates report that it would be impractical for Rogers and its customers to re-farm Rogers' 850 MHz spectrum for LTE since, among other things, customers with 850 MHz handsets would need to be provided with new handsets. More importantly we noted that there is no developing LTE ecosystem for the 850 MHz band, mainly because of the fact that the two largest U.S. carriers will continue to use all of their 850 MHz spectrum to provide

legacy services for several years. As a result, there are simply no technology or consumer devices available for the provision of LTE services in the 850 MHz band.

39. In its comments, Shaw cited a Seaboard report entitled “*Over the Rainbow*” and concluded that incumbents such as Rogers may not require access to 700 MHz spectrum in order to access the latest and most advanced LTE devices.¹⁸ Shaw’s analysis is based on the following absurd claims made by Seaboard regarding the availability of 850 MHz LTE consumer devices:

*Seaboard forecasts that LTE products will be available for both of the key lower frequencies. Bell, Telus and Rogers will not need 700 MHz frequencies to take advantage of LTE products, and their customers will still have access to the advanced services that LTE will offer. Wireless equipment is a volume play. Therefore, we expect the new 700 MHz handsets to support the Cellular and PCS bands as well, but only a handful will support the AWS frequencies. What does this mean for Canada? It means that the swath of next-generation mobile devices geared for the 700/800 MHz frequencies will work on Bell/Telus and Rogers networks, even without incumbent 700 MHz spectral allotments.*¹⁹

40. These claims regarding the 850 MHz band are simply untrue. As noted in our comments, LTE consumer devices will not operate in LTE mode in the 850 MHz band for several years because U.S. (and Canadian) operators will continue to use their licensed 850 MHz spectrum to provide HSPA and legacy GSM services to their tens of millions of existing customers. The lack of devices that will operate in LTE mode in the 850 MHz band is corroborated by the February 2011 GSA report titled “*Status of the LTE Ecosystem*” that is referenced in Rogers’ comments.²⁰ While some LTE devices will drop down to HSPA in the 850 MHz band when outside 700 MHz LTE coverage, the fact remains that they will only operate in LTE mode using 700 MHz spectrum and, possibly, higher band LTE spectrum such as the 1700/2100 MHz band. Rogers

¹⁸ Shaw Comments, para 10.

¹⁹ Seaboard, “*Over the Rainbow*”, (February 2011), pp.5-6.

²⁰ Rogers Comments, para 36.

therefore urges the Department to disregard the claims of Shaw and others that Rogers does not require 700 MHz spectrum because it can use its 850 MHz spectrum to provide LTE services.

41. It is also important to remember that Rogers must be permitted to bid for 700 MHz spectrum so that we will be able to provide LTE service to incoming U.S. roamers. Since Rogers' largest North American roaming partner, AT&T, is implementing LTE in the 700 MHz band, its customers' devices will operate in LTE mode in the 700 MHz band. In order to remain competitive as a U.S. roaming partner, Rogers must be able to serve AT&T's LTE customers using the same spectrum band. Otherwise, AT&T's customers will only be able to roam on Rogers' vast network using older technologies, such as HSPA. If the only carriers in Canada with 700 MHz spectrum are the new entrants, Americans visiting Canada with LTE devices will not have a positive roaming experience.

Band Plan

42. In its comments, Rogers supported harmonization with the U.S. 700 MHz band plan on the basis that this would allow Canadians to benefit from the 700 MHz technology ecosystem, economies of scale, low cost, advanced features, ongoing support, cross border roaming and frequency co-ordination. We note that the vast majority of parties including all of the incumbents, the majority of AWS new entrants, the RABC and manufacturers support this view for the same reasons.

43. A number of parties including Ericsson and the RABC have also demonstrated that the use of the U.S. band plan would be more spectrally efficient than Options 2a and 2b.²¹ Rogers agrees with these parties.

44. Like Rogers, several parties including the RABC, have also dismissed harmonization with the Asia-Pacific band plan (Option 3) on the basis that it would be impractical for

²¹ Ericsson Comments, pp. 2-3 and RABC Comments para 5.1.6-5.1.11.

Canada to harmonize with this band plan while commercial and public safety services have been, and will continue to be, implemented in the U.S. on the basis of the U.S. band plan.²²

45. While we fully support harmonization with the U.S. band plan, Rogers also requested that the Department seriously consider licensing the Upper C block as two separate blocks since this would allow for more potential licensees of scarce 700 MHz spectrum. At the same time, it would not violate the fundamental structure of the U.S. band plan. We also noted that this minor deviation would not affect the ability of Canadians to use the same consumer devices that are manufactured for U.S. C Block licensees. Last, we noted that splitting the C Block would not preclude bidders from assembling the two smaller blocks into a single large block. We note that in the comments they filed, Motorola Mobility, Quebecor, RABC, Shaw and Telus have also urged the Department to split the Upper C block.

46. Along with Rogers, the majority of stakeholders have asked the Department to defer its consideration regarding the licensing of Upper D Block spectrum until the U.S. has decided upon the services for which this spectrum will be licensed. Until that time, there will be no technology ecosystem for D Block spectrum.

Guard Bands

47. Rogers supports the use of the proposed guard band blocks for the sole purpose of avoiding interference between licensed systems. We noted in our comments that this would be consistent with the Department's recent decision regarding the BRS band in which the use of guard band blocks will be restricted for the purpose of avoiding interference. Virtually all of the parties supported this approach for the same reasons.

²² RABC Comments, para 5.1.4.

Tier Sizes

48. Rogers supports the use of Tier 3 service areas for the auction of 700 MHz spectrum on the basis that Tier 3 areas strike the right balance between the need for larger areas that are better suited for the implementation of high-mobility services and the imperative of allowing operators to focus on the geographic markets of interest to them. The use of larger tier areas would disadvantage smaller regional operators while Tier 4 areas would make it unnecessarily difficult and complex for operators to assemble uniform frequency blocks, contiguous spectrum licences, and geographical footprints.

49. We note that there was no consensus among the parties regarding the tier sizes that should be used. Bell and TELUS supported the use of Tier 1 or Tier 2 areas. Several other parties supported the use of Tier 2 and/or Tier 3 areas on the basis that the use of relatively smaller areas is necessary to accommodate regional operators. A minority supported the use of Tier 4 areas. Barrett proposed a variant of Tier 4 areas.

50. Rogers continues to believe that the uniform use of Tier 3 areas would be the most appropriate approach. While we agree with Quebecor that the use of the Tier 1 area *“would have the effect of excluding regional wireless operators from the auction process”*²³, we disagree that the use of Tier 3 service areas *“would impede, or at least seriously endanger, the ability of mobile service operators to assemble the contiguous frequency blocks they will need”*.²⁴ Rogers notes that Tier 3 areas were used to license all of the non-set-aside blocks and some of the set-side blocks in the 2008 AWS auction and we are not aware of any significant failures that were caused by the use of these areas. Rogers also notes that the Department has elected to use Tier 3 areas for the conversion of MCS and MDS licences to mobile BRS licences. It is clear therefore that the use of Tier 3 areas for licensing 700 MHz spectrum would be both practical and consistent with the approach recently used for other mobile spectrum bands.

²³ Quebecor Comments, para 36

²⁴ Quebecor Comments, para 33.

51. Rogers agrees with Barrett that a significant drawback of the current tier structure and, specifically Tier 4 service areas, is that rural areas have not been unbundled from urban areas. We believe, however, that Barrett's proposed solution to this problem is unnecessarily complex and likely impractical. We believe that the alternative approach that we outlined in our comments would be a more practical solution. Specifically, we proposed that operators that are not prepared to implement services in certain geographic areas can avail themselves of the Department's subordinate licensing policy such that roll-out in these areas can be achieved by parties that are prepared to implement services in such areas.

Auction Timing

52. In our comments, we submitted that the 700 MHz and 2500 MHz bands should be auctioned at the same time. We explained that auctioning different mobile spectrum bands at the same time will be more economically efficient, since it will allow bidders to dynamically make trade-offs in the spectrum they bid for in different bands depending on factors such as cost, quantum of spectrum and geographic areas. We noted that this was the view of Irish regulator Comreg when it considered whether to conduct a multi-band auction. Our comments also highlighted the fact that several other regulators around the world had conducted multi-band auctions during 2010.

53. We note that there was no consensus among the parties regarding the timing of the 700 and 2500 MHz auctions. Some parties would like the 700 MHz auction to precede the 2500 MHz auction, while others have asked for the 2500 MHz auction to be completed first. Barrett, Public, Quebecor and Wind favoured auctioning both bands at the same time. Mobilicity preferred to have the 700 MHz auction first, but it is not opposed to a simultaneous auction. Rogers agrees with Quebecor where it stated the following in support of a combined auction:

Efficient business planning requires that firms take a comprehensive assessment of the resources that are available to them and make whatever trade-offs are required to arrive at an optimal investment decision. Efficient business planning

in the spectrum domain is facilitated when spectrum bands are made available at the same time, to the extent feasible.

As a result, we reiterate our recommendation that a single auction be held to award spectrum in both the 700 MHz and the 2.5 GHz bands. This would provide all mobile carriers with the ability to assess their spectrum holdings in an integrated and strategic manner and would yield a higher level of certainty which in turn is a key element to stimulate long term investment.

We believe that the Canadian wireless industry would reap significant benefits from an integrated auction and that the enhanced certainty provided by such an auction would contribute to continued high levels of capital investment by wireless carriers.²⁵

54. Public Mobile echoed these points where it stated, “*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.*”²⁶

55. For these reasons, Rogers firmly maintains that auctioning the 700 and 2500 MHz bands at the same time will be the most sensible approach for the licensing of these two complimentary spectrum bands and we believe that it would result in a more efficient outcome than separate sequential auctions.

Competition in the Canadian Wireless Market

The Canadian Market is Hyper-Competitive

56. In response to Questions 7-1 to 7-3 the majority of respondents noted that the Canadian wireless market was competitive. Parties however differed in their views on

²⁵ Quebecor Comments, para 133-135.

²⁶ Public Mobile Comments, para 134.

the extent of competition and whether the market's competitiveness needs to be artificially sustained.

57. Regional carrier MTS Allstream and new entrants such as Quebecor, Shaw, Wind, Mobilicity and Public Mobile all noted that competition has increased and they claimed that competition was the direct result of the AWS auction policy and the emergence of competing services launched by the new entrants. Comments submitted by Mobilicity describe the current competitiveness of the Canadian wireless market as “*intense*” while Quebecor’s comments noted that “*wireless competition has exploded*”.²⁷

58. In its comments, Rogers agreed that the market is extremely competitive, and in fact hyper-competitive. TELUS agreed, noting that the number of mobile networks, including the HSPA+ networks, has risen materially from 2007 (before the AWS auction rules) to year end 2010. TELUS further noted that there are 10% more brands on average in each market.²⁸ A report prepared by Nordicity (appended to TELUS’ comments) concluded that:

*“wireless is the most competitive communications service sector in Canada. The average Canadian has more choice in wireless services than for any other communications service, which has resulted in declining wireless rates over the past four years.”*²⁹

59. Rogers however disagrees with most submissions which suggest the new entrants are the sole or even the major cause of the current level of competition. Rather Rogers agrees with TELUS where it noted that while the AWS auction policy has had an overall effect in increasing competition the high degree of competition owes much of its development to the TELUS and Bell decision to jointly build an HSPA+ network. This development allowed them to directly compete with Rogers by offering GSM/HSPA

²⁷ Mobilicity and Quebecor Comments, paras 122 and 48, respectively.

²⁸ TELUS Comments, para 113.

²⁹ Nordicity, “*Competition and New Entry in Canada’s Communications Services Market*” (February 2011), page 4.

smartphones and to compete for a share of European roaming.³⁰ TELUS also cited the fierce competition between incumbents in the smartphone segment as a main contributor to price declines and increases in Canadian wireless data usage.³¹ A report by Waverman-Dasgupta, commissioned by Bell, supported this view and credits Rogers' superior financial performance, owed to its choice of GSM technology in the mid 2000s, as the impetus for Bell Mobility and TELUS to migrate to GSM/HSPA-based network technologies.³²

Market Concentration

60. Some new entrants have insinuated that Canada's allegedly weak performance can be attributed to Canada having a highly concentrated wireless market or that "*many if not most provinces continue to be dominated by one or two players*".³³ Rogers submits that these allegations concerning market concentration are unfounded. As outlined in our initial comments, there is a natural limit on the number of carriers that can efficiently operate (i.e. without policy intervention designed to subsidize them) in any given broadband and telecommunications market.³⁴ The smaller the market and the more extensive economies of scale and scope, the fewer the number of firms. Nonetheless, Canadian competitiveness is supported by the Herfindahl Hirschman Index ("HHI"). According to Merrill Lynch, Canada has a relatively low HHI which places Canada fifth out of 21 other developed countries.³⁵ Nordicity also explained that larger markets such as the U.S. which have ten times more wireless subscribers and double the density of subscribers as Canada, struggle to support more than four wireless carriers.³⁶ Based on this information, it is clear that the Canadian wireless market compares favorably in terms of industry concentration, and arguments to the contrary should be dismissed.

³⁰ TELUS Comments, para 114.

³¹ TELUS Comments, para 130.

³² Leonard Waverman and Kalyan Dasgupta. "*Time to Set Aside Caps that Don't Fit: The Limits of Spectrum Policy in Canada*" (February 26, 2011), paragraph 47.

³³ Globalive Comments, para 22.

³⁴ Dr. Jeffery Church with the assistance of Berkeley Research Group LLC, "*Foreign Ownership Restrictions of Canadian Telecoms: An Analysis of Industry Canada's Proposals*", (July 30, 2010), section 2.2.2.

³⁵ Merrill Lynch, "*Global Wireless Matrix 4Q10*" (23 December 2010), page 2.

³⁶ Nordicity report, "*Competition and New Entry, An Analysis of Canada's Communications Services Market*", prepared for Telus (February 2011), page 64.

61. Not only is Canada's market not concentrated, Canada has perhaps the most carriers in the world. In its February 2011 report, Nordicity noted that "*An average of 6.6 companies per province now hold spectrum and an average of 4.2 companies per province have launched service.*"³⁷ This is corroborated by Merrill Lynch, which reported that a grand total of 5 players were presently operating on a national basis in Canada (only the U.S. and U.K. match this level, while all other developed countries have less).³⁸ Further, as Rogers referenced in its comments, there are at least 20 wireless brands in each of the top six markets in Canada, all competing to bring their own unique service offering to wireless customers. This is despite Dr. Jeffery Church's analysis that shows that "*regardless of market size, most wireless markets seem only to be able to sustain three or four major competitors.*"³⁹

62. The number of carriers currently operating in Canada is simply not sustainable. In their comments, many carriers highlighted the fact that consolidation is likely to happen in Canada, sooner rather than later. The same trend can be observed in the U.S., with AT&T's recently proposed \$39 billion bid for T-Mobile which would see the second largest wireless carrier in the U.S. taking over the fourth largest carrier. Rogers doubts that the Canadian wireless market will be able to avoid this reality considering the great number of wireless competitors currently in the market. A recent article in the Financial Post notes that "*there is growing probability that the minors [pure-play new entrants] will consolidate to get themselves more market power and access to capital.*"⁴⁰ New entrants themselves continue to discuss the fact that market consolidation will happen in Canada. Globalive CEO and Chairman Anthony Lacavera recently stated that "*We are still certainly interested in the consolidation of new entrants.*"⁴¹ Public CEO Alex Krstajic shares a similar opinion and referred to Wind and Mobilicity when he recently

³⁷ Nordicity report, "*Competition and New Entry, An Analysis of Canada's Communications Services Market*", prepared for TELUS (February 2011), pages 9.

³⁸ Merrill Lynch, "*Wireless Matrix 4Q10*" (December 23, 2010), page 2.

³⁹ Dr. Jeffrey Church with the assistance of the Berkeley Research Group, "*Spectrum Policy as Competition Policy: A Good Choice for Canada?*", (February 28, 2011), paragraph 158.

⁴⁰ Financial Post, "*Telecom Merger Likely for Canada*", by Jamie Sturgeon (March 22, 2011).

⁴¹ The Globe and Mail, "*Buying rival could be solution for Wind Mobile*", Iain Marlow (February 7, 2011).

stated that, "*I think one or more of the other new entrants runs [sic] out of money by the end of the year.*"⁴²

Penetration and Mobile Usage Rates

63. Several parties compared Canada's wireless penetration and usage rates with those found in the U.S. to argue that Canada lags. Rogers submits however that these notions regarding Canada's ranking in terms of penetration and usage are inaccurate. Comparisons of Canada's performance with the U.S. are commonly used without any attempt to place them in the correct context or with the necessary qualifications.

64. While it is true that Canada has lower wireless penetration than the U.S., there are several factors that contribute to this difference. Canadian carriers cover a larger land mass with only 10% of the population density of the U.S. In addition, as noted by Dr. Jeffrey Church "*Canada had an unusually well developed and unusually affordable fixed-line network when the wireless era began.*"⁴³ As a result, Canadian wireless carriers have faced stronger competition from wireline substitutes than their counterparts in the U.S., where there has been a higher level of cord cutting. In its comments, TELUS aptly noted that the wireless penetration rate in Canada continues its steady climb at 4% per year, and it does not appear that the introduction of new entrants has had any material impact on penetration growth in Canada.⁴⁴

65. Wireless penetration, however, is also not the correct measure of wireless usage in a society. As we explained in our comments, MOU per capita is a better metric for measuring usage as it compares the minutes of use per population per month. As noted by Dr. Jeffrey Church, British regulator Ofcom considers MOU per capita as its preferred measure of industry output.⁴⁵ According to Merrill Lynch Canada's MOU per capita is 265 minutes. The Canadian MOU per capita surpassed that of 35 other

⁴² Canadian Press, "New Wireless carrier Public Mobile hopes to acquire one of its competitors", LuAnne La Salle (March 31, 2011).

⁴³ Dr. Jeffrey Church, "*Spectrum Policy as Competition Policy: A Good Choice for Canada?*", para 112.

⁴⁴ TELUS Comments, para 143.

⁴⁵ Dr. Jeffrey Church, "*Spectrum Policy as Competition Policy: A Good Choice for Canada?*", para 109.

nations surveyed and while the Canadian level of wireless usage per capita is lower than the U.S. (770 MOU per capita), every country lags American usage. Based on MOU per capita data, it is evident that Canadians use wireless services more than, for example, many of their European counterparts who average 214 MOU per capita. In total, Canada ranks very well in terms of usage per subscriber, placing fifth out of the 49 countries surveyed, and well ahead of the U.K., Spain, France and Germany.⁴⁶ Canada is therefore a leader in wireless adoption, not a laggard.

EBITDA Margin

66. In their comments some new entrants have tried to argue that Canadian wireless carriers are among the most profitable in the world and that the combined profit margin enjoyed by Canadian wireless providers is the highest in the world.

67. In response, Rogers submits that the term “profitability” cannot be viewed from a static standpoint but instead must be analyzed over a longer period of time. The Canadian wireless industry has been a high risk market for some time and has only recently become more profitable. In his February 2011 report, Dr. Jeffrey Church noted that “*Rogers’ wireless arm was far from being a “sure bet” in the early 2000s. For instance, Moody’s credit rating service downgraded Rogers’ debt in July 2002.*”⁴⁷ Furthermore, in its comments, Bell highlighted the fact that incumbent carriers have been through years of massive investment, significant risk and accumulation of significant operating losses.⁴⁸ Bell further noted that the additional \$4.26 billion spent in the AWS auction “*would once again result in a negative cumulative cash flow for the wireless industry.*”⁴⁹

68. Dr. Jeffrey Church came to a similar conclusion in his report when he calculated Rogers’ life-cycle profitability. He noted in his report that “*assuming a 10 percent*

⁴⁶ Merrill Lynch, “*Global Wireless Matrix 4Q10*”, page 81.

⁴⁷ Dr. Jeffrey Church with the assistance of the Berkeley Research Group, “*Spectrum Policy as Competition Policy: A Good Choice for Canada?*”, (February 28, 2011), para 133.

⁴⁸ Bell Mobility Comments, para 67.

⁴⁹ Bell Mobility Comments, para 67.

*discount rate for these cash-flows we find that Rogers has not generated positive cash flow assuming this discount rate.*⁵⁰ Dr. Church's analysis covers the period from 2000 to 2009. Rogers submits that a comparable study being done from 1985 to today would provide even worse results. Dr. Church concludes that the recent high cash-flows and earnings profits generated are payback for the substantial risks that investors agreed to take and to this date these investors may not have been fully compensated for the opportunity cost of the capital they have provided.⁵¹

69. Based on this information it appears clear that a longer term view of profitability illustrates that the carriers have not been as profitable over the long term as some of the new entrants allege. If this were the case it would be likely that some of these new entrants would have applied for or purchased spectrum and entered the market far earlier than they eventually did. As noted earlier, Rogers made several spectrum purchases in the past which were open to any party, including new entrants, and yet all elected to pass on these opportunities.

Average Revenue Per User

70. Many submissions complained that rates and revenues in Canada were too high. However, Rogers submits that it is extremely important for the Department to understand the impact of Canada's geography and demographics before assessing or comparing Canadian price levels with other countries. Capital expenditures related to network deployment and expansion can be recovered over many more customers per square kilometre in denser countries like the U.S., which will ultimately lower the cost per customer for U.S. carriers. Furthermore, as Nordicity's report explained, based on ARPkm² the *"US market generates nearly 3 times as much revenue per square kilometre than Canada, and the UK market nearly 14 times more. In fact, average-revenue-per-square-kilometre in Canada is more than eight times less than the average*

⁵⁰ Dr. Jeffrey Church with the assistance of the Berkeley Research Group, *"Spectrum Policy as Competition Policy: A Good Choice for Canada?"*, (February 28, 2011), para 134.

⁵¹ Dr. Jeffrey Church with the assistance of the Berkeley Research Group, *"Spectrum Policy as Competition Policy: A Good Choice for Canada?"*, (February 28, 2011), para 159.

of the developed wireless market, and nearly 25 times less than the leading country (Netherlands)". As can be seen, the revenue-generating potential of the Canadian wireless market on a per-area basis is among the least attractive in the world.

71. Furthermore, ARPU is a flawed metric and a more accurate measure of price is the Average Revenue per Minute (ARPM). In the Waverman-Dasgupta report prepared for Bell, it was demonstrated that Canadian voice revenue per minute has fallen because competition continues to constrain prices, unlike in other countries where regulatory-imposed cuts to mobile termination rates have been the primary driver of declining per minute revenues.⁵² Moreover, in his February 2011 report Dr. Church examined "Average Revenue Per Minute as a proportion of GDP" and found that Canada has one of the most affordable usage costs for wireless subscribers. Specifically, he found that the Canadian "*ARPM as a proportion of GDP per capita is the third lowest in the sample of countries that we looked at.*"⁵³

72. The metrics examined by Waverman-Dasgupta and Dr. Jeffrey Church are far more meaningful than ARPU. The ARPU measure is flawed, but when translated into a more meaningful (ARPM), Canada ranks very well. So, despite statements to the contrary, it is clear that voice services are reasonably priced in Canada and Canadian consumers are paying less than consumers in many European countries.

Impact of New Entrants

73. Comments submitted by several of the new entrants try to illustrate the impact they have had on the market. Presumably they do this in an attempt to justify their call for further subsidies. Wind, Mobilicity and Public Mobile all listed several price plan "innovations" that they have brought to the market. The most frequently referenced of these "innovations" is the unlimited plan, which has been widely available in the U.S. for

⁵² Leonard Waverman and Kalyan Dasgupta, "*Time to Set Aside Caps that Don't Fit: The Limits of Spectrum Policy in Canada*", February 26, 2011, para 47.

⁵³ Dr. Jeffrey Church with the assistance of the Berkeley Research Group, "*Spectrum Policy as Competition Policy: A Good Choice for Canada?*", (February 28, 2011), para 106.

several years. Each of these new entrants notes that they were responsible for bringing some form of zone-based unlimited voice and/or data plans to the Canadian wireless marketplace.⁵⁴ As referenced in our comments, Rogers noted that both Merrill Lynch and RBC Dominion Securities saw a trend in zone-based unlimited plans where Canadian pricing was at or lower than U.S. levels.⁵⁵ The RBC Dominion Securities report further noted these aggressive pricing plans from the new entrants are at levels below those found in the U.S. market and that they are likely unsustainable.⁵⁶ Even Wind CEO Anthony Lacavera conceded current prices won't last when he noted, "*Public will not last long selling below their cost and we feel this move is consistent with their business plan of selling to Globalive or one of the incumbents.*"⁵⁷

74. The unsustainable aspect of unlimited plans is evident when considering the current market trends in the U.S., which show that unlimited plans are being phased out by several U.S. carriers. AT&T started to phase out unlimited data plans in June 2010 and Verizon recently announced that it too would phase out unlimited data plans for its iPhone customers some time in the summer of 2011.⁵⁸ The unsustainability of these plans is further evidenced when considering the plight of pre-paid unlimited plan provider Leap Wireless in the U.S. Macquarie Equity Research sees "*little value in Leap as a standalone business due to high leverage, churn and lack of free cash flow*".⁵⁹

75. Other than prices for zone-based unlimited plans, the pure-play new entrants have had little impact on the Canadian market. They have done very little in the area of facilitating technological innovations. As noted in Rogers' comments, according to a recent report from the Global Mobile Suppliers Association, Canada has retained its

⁵⁴ Wind Comments, para 17; Mobilicity Comments, para 156; and Public Mobile Comments, para 72.

⁵⁵ Merrill Lynch, "*Wireless Update: Prices Now at US Levels*" (January 25, 2011) page 2.

⁵⁶ RBC Capital Markets, "*Fiercely Competitive Wireless Quarter*", page 1.

⁵⁷ Canadian Press, "New wireless carrier Public Mobile hopes to acquire one of its competitors", LuAnne LaSalle (March 31, 2011).

⁵⁸ Bloomberg News. "*Verizon Wireless Will End Unlimited Data Plans for Data*" (March 1, 2011).

⁵⁹ Macquarie Equities Research, "*Leap Wireless International: Too Late for a Mulligan on PCS Deal*" (March 11, 2011), page 1.

position as the global leader with the most HSPA+ deployments in the world. Five operators in Canada have deployed HSPA+ at speeds of 21 Mbps (Rogers, Bell, TELUS, SaskTel and Videotron).⁶⁰ Of note is the fact that none of the pure-play new entrants appear on the GSA's list. They have not even deployed the technology that Rogers deployed several years ago.

76. For its part, Rogers has been a technological leader over the past 25 years, and will continue to innovate to keep pace with global wireless developments. Rogers has always been among the first to deploy the latest advanced wireless technologies and will continue to do so in the future. Rogers is known for introducing the latest smartphones and other devices, such as the mobile Internet Rocket Stick, and hybrid devices, such as the Rocket Hub which can provide up to 15 users with high speed Internet access over our HSPA network. Rogers is also the first Canadian carrier to announce the imminent deployment of LTE.

No Need for Additional Measures – Set Asides and Caps

77. In our comments, Rogers argued that there is no need for additional measures to increase competition in Canada. It remains Rogers' view that auctions should be fair and open to ensure those carriers that need and value the spectrum the most will have access to the spectrum and can put it to its best use.

78. Many new entrants however believe that special measures to limit Rogers' participation in the 700 MHz auction is consistent with Industry Canada's policy objectives, and will promote and sustain competition. For example, Wind asserted that special measures are needed to "*continue to offer meaningful and enhanced competition.*"⁶¹ Mobilicity concurred stating, "*There is a need for specific measures in the 700 MHz auctions to increase and sustain competition of which spectrum caps and*

⁶⁰ Global Mobile Suppliers Association, "*Report on Global HSPA+ Network Commitments and Deployments*" (January 24, 2011), page 2.

⁶¹ Wind Comments, para 31.

*set-asides are important components, but there are other measures required as well.*⁶² Neither carrier explained however how a set-aside or cap actually sustains or encourages competition. In fact, as Dr. Jeffery Church noted, given the limited amount of 700 MHz spectrum available, using a set-aside or spectrum cap could keep spectrum from those that can best use it, and therefore might actually reduce competition and choice, particularly for those in rural and low-density areas. This view is echoed by Bell, which noted that because of the scarcity, a set-aside or a spectrum aggregation limit *“will result in spectrum not going to the most productive users and will lead to curtailed output and innovation, rather than increased competition.”*⁶³

79. These calls to protect or enhance wireless competition in Canada are simply inconsistent with the current state of competition. Canada’s wireless industry is among the most competitive in the world with perhaps more market participants than any other country. There is a wide array of national and regional carriers, AWS new entrants, mobile virtual network operators and resellers competing for customers. Even the new entrants recognized the amount of competition in Canada, as they publicly argue the need for consolidation and a reduction in the number of market participants.

80. The new entrants also suggested that a set-aside or cap recognizes and remedies continued *“barriers to entry”*.⁶⁴ What the new entrants do not acknowledge is that entry has already happened. Furthermore, several of the AWS new entrants are well financed firms that never needed government assistance to enter in the first place. These multi-billion dollar companies, including Wind’s parent Vimpelcom, the world’s fifth largest wireless firm, certainly need no further subsidies. As TELUS’ submission noted:

TELUS believes that these firms have already received significant benefits and have already been given the tools they need to compete on an ongoing basis. After enjoying protected and privileged access to commercial mobile spectrum for entry into a large growth business that incumbents took 20 years to make

⁶² Mobilicity Comments, para 170.

⁶³ Bell Comments, para 121.

⁶⁴ MTS Comments, para 94.

*profitable, AWS entrants have ongoing access to mandated site and tower sharing and mandated roaming. By the time the Department conducts the 700 MHz spectrum auction these firms will have had four years to establish themselves and some of them may have gone through some form of consolidation.*⁶⁵

81. Similarly, in reference to companies such as Quebecor, Shaw and Eastlink, TELUS argued that there is “*absolutely no rationale for subsidizing or advantaging large, established cable companies a second time via the upcoming 700 MHz and 2500 MHz auctions.*”⁶⁶

82. Another argument raised by the new entrants is that without specific measures in place incumbents will buy all of the available spectrum at any price to keep out competitors. For example, Quebecor noted “*that the incumbent carriers, in the absence of policy-driven constraints, have both the means and the incentive to acquire all spectrum resources made available at auction has never been in doubt.*”⁶⁷ A similar sentiment was noted by Public Mobile when it stated that, “*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.*”⁶⁸ It is ironic for Public Mobile to suggest that incumbents will purchase all non-set aside spectrum simply to keep it out of the hands of competitors, since if that was true, Public Mobile would not exist. The G block spectrum won in the AWS spectrum by Public Mobile was non set-aside spectrum, and Rogers had every opportunity to outbid Public but did not because we had no need for that spectrum.

⁶⁵ TELUS Comments, para 149 a.

⁶⁶ TELUS Comments, para 150 a.

⁶⁷ Quebecor Comments, para 77.

⁶⁸ Public Mobile Comments, para 78.

83. It should be noted that in the 2008 AWS auction non-set aside spectrum in the G and E blocks was won by a total of nine non-incumbents, including Public Mobile, Globalive, Eastlink, MTSAllstream, Shaw, and Quebecor. In fact, non-incumbents have won spectrum in every auction ever held in Canada, including the auctions for PCS, 24/38 GHz, 2.3/3.5 GHz, and AWS. In other words, the incumbents do not buy all the non-set aside spectrum *“at any price to keep it out of the hands of challenger companies.”*⁶⁹

84. It is also preposterous to suggest that special measures are required because Rogers, and other incumbents, will hoard spectrum and not deploy services as suggested by many parties. For example, Eastlink suggested that incumbents would purchase even more spectrum that *“would likely go unused except in a few urban centers”*⁷⁰, a view held similarly by Shaw when it noted that an auction without a spectrum cap or set-aside *“would provide incumbents with the opportunity to act on their incentive to keep spectrum out of the hands of new entrants by bidding up the cost of this spectrum”*⁷¹ and that such *“spectrum hoarding at the expense of competitors will lead to inefficient use of spectrum at a point when consumer demand suggests that Canada can least afford it”*.⁷² It is ironic that both these parties have yet to deploy service with the AWS spectrum that was purchased almost 3 years ago. Moreover, evidence shows that Rogers does not concentrate its service only in urban centres but it provides service in both urban and non-urban areas, offering service to 95% of the Canadian population. In addition, the allegations of hoarding are disproved since Rogers is deploying LTE using all our current spectrum inventories. Rogers also recommended a 700 MHz roll-out requirement to ensure there is no hoarding. Ironically, it is the pure-play new entrants who oppose this idea.

⁶⁹ Public Mobile Comments, para 78.

⁷⁰ Eastlink Comments, pg 24.

⁷¹ Shaw Comments, para 80.

⁷² Shaw Comments, para 80.

85. Many of the new entrants also argued that given the amount of spectrum that Rogers and the other incumbents have, and 850 MHz spectrum in particular, these companies should be precluded from obtaining any 700 MHz spectrum. To support their views new entrants cited the Seaboard study “*Over the Rainbow*”, arguing that 700 MHz spectrum was unnecessary for incumbents because consumer devices will be available for their 850 MHz spectrum.

86. As noted above, there is no basis for Seaboard’s claim that LTE will be delivered in the near term over 850 MHz spectrum. That view contradicts the view of every other industry observer.

87. Several AWS new entrants also asked for special measures to limit incumbents’ participation in the 700 MHz auction because they had to pay substantially more for spectrum than the incumbents and therefore were at an unfair disadvantage. For example, in its submission Wind asserted that the new entrants “*paid substantially more (per MHz) for their spectrum than their incumbent competitors which enjoy lower cost spectrum awarded through selection processes other than competitive auctions.*”⁷³ What Wind, and other new entrants, fail to acknowledge is that incumbents such as Rogers undertook significant financial risks when investing during the early stages of the wireless industry’s development when the market was measured in the thousands of customers, not tens of millions. Rogers sustained losses for nearly twenty years before realizing a relatively modest rate of return.⁷⁴ Bell similarly noted in its comments that when the wireless industry first began there was no guaranteed rate of return and there would be “*years of massive investment, significant risk and the accumulation of significant operating losses.*”⁷⁵ Rogers therefore did not receive any spectrum for “free”, as annual licence fees were assessed on this spectrum. Rather, we endured two decades of losses that far exceeded the auction prices paid by the new entrants.

⁷³ Wind Comments, para 32.

⁷⁴ Dr. Jeffrey Church, “Spectrum Policy as Competition Policy: A Good Choice for Canada?”, (February 2011), para 134-135.

⁷⁵ Bell Comments, para 67.

88. The arguments raised by some submissions to justify a set-aside or cap fail to meet the criteria set out in Industry Canada's new Framework for Spectrum Auctions. The Framework established two principles: 1) Restricting Participation in the Wireless Market and 2) Spectrum Aggregation Limits.⁷⁶

89. According to Principle 1, an entity may only be restricted from holding certain spectrum licenses if the entity possesses market power in a licence region, a new entrant is likely to provide competitive service as a result of the restriction; and there are no economies of scope created by the entity obtaining the spectrum. Rogers does not possess any market power in any region of Canada. As previously explained, Canada has one of the least concentrated wireless markets in the world and no carrier has the ability to set market prices. Secondly, there is no likelihood that a new entrant will enter the Canadian market in the 700 MHz auction. As the current new entrants repeatedly state, consolidation is far more likely. Finally, Rogers' LTE deployment is the type of economies of scope the Department should be encouraging, not prohibiting.

90. There is also no basis to impose spectrum aggregation limits under Principle 2. Under that Principle, spectrum aggregation limits may only be imposed if a bidder acquiring spectrum beyond a certain level would not, as a result, face effective competition and that bidder would not provide lower prices or higher valued services. As remarked by most submissions, Canada has some of the strongest wireless competition in the world. Most regions now have between three to six carriers not to mention resellers. Incumbents obtaining new spectrum will not change that. However, if Rogers was to obtain spectrum, it would result in rapid deployment of the next generation of wireless technology, LTE, and help bridge Canada's digital divide.

91. Therefore under Industry Canada's own criteria, there is no argument for further measures restricting Rogers' ability to obtain additional spectrum. Access by Rogers to

⁷⁶ Industry Canada. "Framework for Spectrum Auctions in Canada". (Issue 3, March 2011).pg 4-5.

700 MHz spectrum will enhance its services and will allow Rogers to deliver the next generation of wireless technology to all Canadians while not threatening competition in the wireless market.

No Need for Further Tower Sharing Measures

92. In Section 7 of its Consultation Paper the Department has sought comments on whether there is a need for specific measures in the 700 MHz and/or 2500 MHz auction to increase or sustain competition. Several parties took this opportunity to ask for additional regulation and subsidies. Wind, Public Mobile, Mobilicity, Eastlink and Shaw in particular all submitted comments requesting that the Department further intervene in the market by implementing additional tower sharing measures.

93. In general these parties alleged that they have had little success in gaining access to incumbent towers and that further artificial and interventionist measures are required to eliminate delays and, as Shaw remarked, stop the “foot-dragging of the incumbents.”⁷⁷ Eastlink thinks that tower rates should be regulated and set at cost.⁷⁸ Several parties asked for changes to the arbitration process and Public Mobile requested that the CRTC be involved to make the process more efficient and effective. Public Mobile and Mobilicity also asked that administrative and punitive penalties be implemented to punish incumbents. Public Mobile also recommended that towers be expropriated where required and that a central database of tower locations be created.⁷⁹

94. The new entrants have no basis for demanding any changes to the tower sharing process. While Rogers has made every effort to comply with its tower sharing *Conditions of Licence*, several new entrants have demonstrated they are not truly interested in tower sharing. Other than a backlog created right after the AWS auction due to the sheer volume of requests, Rogers has in fact responded to the vast majority of requests it has received. On the other hand, some new entrants have made little

⁷⁷ Shaw Comments, pg v.

⁷⁸ Eastlink Comments, pg 36.

⁷⁹ Public Mobile Comments, para 85-86 and Mobilicity Comments, para 21.

effort to share towers and instead have abused the system. Rogers has had to endure floods of requests which are subsequently cancelled (over 150 cancellations to date), requests followed by cancellations followed by identical requests, and refusals to share our towers.

95. Neither Public nor Mobilicity have any grounds to make a complaint regarding tower sharing. They have barely attempted to access any of Rogers' towers. In the two and half years since the end of the AWS auction, Public has requested to access a total of 7 Rogers' towers. Mobilicity has requested a total of 19 towers (5 of which were later cancelled). Rogers has responded with Offers to Share to most of these requests, and continue to process the remainder. Rogers has in no way affected either carrier's ability to deploy their networks.

96. Public's inexperience with tower sharing is evident in their other requests. They have called for a central Industry Canada database of tower sites as well as a "pro-active" approach to tower sharing where carriers provide other carriers with all their tower profiles in advance. If Public was more active in tower sharing it would understand that 1) such a database already exists; and 2) providing all of an incumbent's thousands of profiles would be an enormous amount of work, which would further require an enormous amount of effort to update on a regular basis.

97. Wind has even less cause to complain about tower sharing. While the most vocal publicly about their failure to tower share, the failure is completely due to Wind's own actions (or inactions). Rogers has responded to Wind's access requests with dozens of Offers to Share. Wind cancels their requests, refuses our offers, and sits on the paperwork for months with no action. One of their delay tactics is as follows. When extending an Offer, as a courtesy, Rogers provides requestors with up to six months rent free to complete their engineering work (which is more time than is required.) In the rare event that a requestor requires more than six months, Rogers offers the requestor the ability to begin paying rent to retain the space while they complete their engineering work. Wind however has used the entire six months as their norm.

Furthermore, they will cancel Offers at the end of the six month period and resubmit an identical new application shortly thereafter. In effect, they have been using this process to preserve the reserved space rent free while never using it. This type of gaming is unacceptable and it is Rogers' position that new entrants should only be requesting Offers to Share when they actually intend to place their equipment upon the tower.

98. Wind therefore cannot complain that Rogers has in any way delayed their roll-out. Of the six dozen or so Offers made to date, Wind has only completed a single installation at a Rogers' tower site, although they are paying rent on six. In one case, at Rogers' Chelsea tower, Rogers made an offer to share on July 27, 2009. Wind accepted the offer in October 2009, but then took until November 26, 2010, over a year later, to deliver the technical diagrams necessary to load equipment on the tower. As of April 1, 2011, Wind still has not installed its equipment upon the tower. Wind has never seriously sought to share towers and even publicly admitted so when CEO Ken Campbell told the Canadian Senate, "*Incidentally, going into this business, we did not think the tower-sharing would work, so we planned to do it without tower-sharing.*"⁸⁰ Wind's inactivity confirms this strategy.

99. Rogers finds Shaw's and Eastlink's complaints puzzling. It has been two and half years since the AWS auction and neither Shaw nor Eastlink have deployed networks. Both sides easily had plenty of time to move any matter to arbitration if necessary. However, both carriers realize arbitration would provide no relief as the rates and terms in Rogers' agreements are standard in the industry and in fact Rogers agrees to the same terms when we are the tenant. That is why Eastlink calls for regulated cost-based rates despite the conflict with Industry Canada's own Spectrum Policy Framework from 2007 which states "market forces should be relied upon to the maximum extent feasible" and that "regulatory measures, where required, should be minimally intrusive, efficient and effective". The new entrants are not asking for fair treatment. They want special treatment.

⁸⁰ Canadian Senate Hearings. The Standing Senate Committee on Transport and Communications, October 21, 2009.

100. Furthermore, Rogers finds Shaw's claim of incumbents' delay particularly galling since Shaw has delayed requests from Rogers to access Shaw's cable towers for several years.

101. If there is a flaw in the mandatory roaming and tower sharing regime it is that the regime does not properly discipline new entrants for making requests that are simply not serious. Frivolous tower sharing requests by the new entrants have wasted considerable Rogers' resources, including thousands of man-hours, hundreds of thousands of dollars and have undermined the entire tower sharing process. There is therefore no need, as proposed by Public, for CRTC oversight. The tower sharing process simply requires a more honest involvement by the new entrants.

102. An example of a new entrant that truly embraced tower sharing is Videotron. After working through some initial issues, Rogers and Videotron currently have a successful tower sharing relationship, as is evident in the fact that more than 60 arrangements have been finalized by the parties.

103. Rogers submits that regulating rates, expropriating towers, extending the arbitration process or issuing financial penalties are contrary to sound public policy and should be disregarded. It is clear that no further tower sharing measures are required to sustain competition. The alleged "*foot dragging*" by the incumbents is in fact foot-dragging by the new entrants. The Department in any event already provided all parties the opportunity to comment on the current tower sharing and roaming processes in its November 23, 2010 review. As a result, Rogers submits that requests for additional tower measures should be dismissed by the Department.

Need for Further Roaming Measures

104. Several submissions called for substantial changes to the mandatory roaming regime. Despite smooth roaming negotiations, no arbitrations and rates and terms in line with commercial rates, several new entrants have criticized the mandatory roaming

regime in Canada and demanded change. Their major complaints were the inability to quickly resolve disputes, the duration of in-territory roaming, the rates and terms of the agreement, and seamless handovers.

Dispute Resolution

105. Several new entrants argued that the current arbitration process needs to be replaced with a speedier process. They complained that due to the expected duration of an arbitration, they could not rely upon it and were therefore forced to accept uncompetitive terms. Mobilicity found fault in the process in that it “*did not permit ample time to prepare for the process, complete the arbitration, and then only on conclusion of the arbitration permit technical planning and implementation to commence.*”⁸¹ Wind had a similar issue and asked the Department to introduce “*more effective dispute resolution alternatives to the currently mandated arbitration process.*”⁸²

106. As the roaming partner for most new entrants, Rogers finds these complaints without merit. While Rogers had taken steps to ensure we were prepared the day after the auction to accept roaming requests, Wind and Mobilicity took three and four months, respectively, to approach us. They both took months to sign a non disclosure agreement. Wind then spent three months filing a series of complaints with the Department, something no other new entrant felt a need to do, while Mobilicity took four months to provide the necessary network information. Once negotiations began in earnest, both negotiations proceeded relatively smoothly. There was therefore plenty of time of time to commence an arbitration if necessary. In fact, other new entrants had even more time than Wind and Mobilicity to consider an arbitration if necessary but not a single new entrant relied upon that option. The reality was that the rates and terms were in line with commercial rates and terms and arbitration would not have changed that fact.

⁸¹ Mobilicity Comments, pg 55.

⁸² Wind Comments, para. 47.

107. Rogers also disputes the notion that new processes are needed as incumbent carriers did not co-operate with the new entrants in order to facilitate their launch. Rogers made every effort to help the new entrants complete their initial launch preparations. In fact, attached as Appendix 1 are e-mails from Wind to Rogers thanking Rogers for helping Wind accelerate its launch and working through Christmas season. There is therefore no need for any amendments to the arbitration process.

Duration of In-Territory Roaming

108. Several new entrants complained that the 5 year term of in-territory roaming is insufficient and have asked that it be extended to 10 years. They suggest that without an extension they could not compete with the incumbents. They further allege the additional time is required due to the delay tactics of the incumbents denying timely tower sharing. Shaw explains that new mandated roaming rules are needed *“because of delays, refusals, and general foot-dragging that some of the new entrants have experienced in their negotiations with the wireless incumbents. As a result, new entrant deployment is taking longer than expected...”*⁸³ Wind is even more direct, stating *“there is no question that there have been a number of factors beyond Wind’s control which have meant that Wind’s roll-out has been slower than it anticipated at the time of the AWS auction. These have included the difficulty of securing tower sharing arrangements with incumbents and the difficulty of securing municipal approvals for new towers.”*⁸⁴

109. Shaw’s request for an additional 5 years of in-territory roaming is outrageous. First and foremost, Shaw is not launching service until 2012, four years after the auction ended. They voluntarily chose to miss almost the entire period of in-territory roaming and have no cause to ask for an extension. Furthermore, Shaw has experienced no foot-dragging as they have just started working on their deployment. Shaw has had every opportunity to rely upon in-territory roaming to assist their launch but chose not to take advantage of it.

⁸³ Shaw Comments, para 101.

⁸⁴ Wind Comments, para 43.

110. Wind has no stronger case to seek an extension. As already discussed in the tower sharing section, Wind has not been delayed by Rogers in obtaining tower sites. Despite a flood of Wind requests, Rogers has responded to almost all of them, making dozens of offers to share just to have Wind cancel the request or ignore the offer. Despite Rogers making every effort, Wind has only installed equipment on a single Rogers' tower site in the last two years.

111. Municipal tower authorizations are not an excuse either. To begin with, the timeframes to obtain municipal authorizations were well understood at the time of the AWS auction. Wind's experienced leadership team would have been well aware of them. Secondly, if Wind had made an honest effort to share towers, municipal authorizations would have been less of an issue. Finally, it is Rogers' understanding that Wind made liberal use of the 14.9 meter tower exemption and therefore in many cases did not have to obtain any municipal authorizations. Finally, most of the installations have been on roof tops where no approvals are needed.

112. Any extensions to the AWS mandated roaming term would also undermine the integrity of the AWS auction. The auction's results were based upon key provisions such as the in-territory mandated roaming term. Initial licence valuations developed before the auction hinged on those variables. Changing the terms after the fact unjustifiably punishes some participants while rewarding others. The entire auction's outcome may have been different.

113. Along with extending the in-territory roaming term for the AWS spectrum, several new entrants also requested that the conditions of licence for the 700 MHz and 2500 MHz spectrum include mandated in-territory roaming for ten years or more. Wind stated, *"For the 700 MHz and 2500 MHz spectrum, realizing that five years is considerably too short to expect new entrants to build out their systems, the Department should from the*

*outset determine that mandated roaming should be extended to a full ten years.*⁸⁵

Public asked for even more, urging the Department to extend “*the mandated in-territory roaming term for the durations of the licence term*”⁸⁶, which under the new spectrum framework is up to twenty years. These requests, however, would directly conflict with the Department’s policy of facilities-based competition.

114. Future allocations of spectrum should not include any *Conditions of Licence* mandating in-territory roaming. Each of the new entrants has had more than sufficient time to deploy their networks and compete independently. The original in-territory mandated roaming term was intended to provide new entrants without any network infrastructure an ability to compete while they built out. By the time the 700 MHz and 2500 MHz spectrum is auctioned, the AWS new entrants will have built their networks. They will simply overlay their 700 MHz and 2500 MHz equipment on their AWS footprint. Any calls by the new entrants for further in-territory roaming terms are simply in order to avoid building their networks. The only carriers who should possibly be entitled to a five year in-territory roaming term are true new entrants who at the time of the 700 MHz or 2500 MHz auction possess no spectrum.

Rates

115. Some new entrants also complained about the rates for roaming. Wind asked the Department to institute several measures “*to deliver to Canadian consumers the improved pricing for roaming services that they have seen for other wireless services*”.⁸⁷ They suggested several methods including government set price caps and most favoured nation status for new entrants. Public went further and asked for standard form roaming agreements for all new entrants.⁸⁸ However, as required in the *Conditions of Licence*, all new entrants including Wind and Public were offered standard commercial rates. Wind and Public however want below market rates. Once again, Wind and Public are seeking special treatment, not fair treatment. If Wind truly wished to address

⁸⁵ Wind Comments, para 44.

⁸⁶ Public Comments, para 93.

⁸⁷ Wind Comments, para 46.

⁸⁸ Public Mobile Comments, pg 38.

*“increasing consumer frustration with high roaming charges”*⁸⁹ as it claims, perhaps Wind should consider reducing the substantial mark-ups it charges its customers for out of zone roaming.

Seamless Handover

116. Another demand made by the new entrants was to require seamless handovers. Wind recommended *“that the Department expand the condition of license relating to mandatory roaming to include mandatory seamless handoff.”*⁹⁰

117. The Department has already studied the matter and explicitly did not make the provision of seamless handover a requirement. That decision is in keeping with the rest of the world where seamless handover has been mandated in almost no countries. The process is also difficult and expensive, especially in light of the fact that it is supposed to end within 5 years. As they understood at the time of the auction, the new entrants are supposed to be taking advantage of the temporary roaming opportunity by building out their networks.

118. Wind has attempted to argue that seamless handover is common around the world. They state *“We understand that at least one incumbent has argued that providing seamless handoff is both difficult technologically and expensive. This is completely inconsistent with our experience, what we have heard from other international carriers and with the international experiences of several of WIND’s senior executives.”*⁹¹ This is the second time Wind has had an opportunity to provide evidence that seamless handovers are easy and common, the first being their Part VII complaint filed with the CRTC against Rogers asking for seamless handovers. Both times they failed to provide a single instance of where seamless handover occurred, let alone was mandated. Instead they provide innuendo and supposition.

⁸⁹ Wind Comments, para 46.

⁹⁰ Wind Comments, para 40.

⁹¹ Wind Comments, para 41.

119. Rogers has looked behind Wind's claims and still can find no cases of mandated seamless handover. Since most of the "*international experience of several of WIND's senior executives*" occurred with their parent company Orascom, Gilbert & Tobin conducted a survey (attached as Appendix 2) of those countries Orascom operates in, together with some other major jurisdictions, to determine whether any of those countries mandated seamless handovers. The study concluded seamless handover is not mandated in a single country surveyed. Seamless handover is simply too difficult, too expensive and too time consuming which is why there are no industry standards for it.

The Future of Facilities-based Competition

120. Putting together the new entrants' demands, it is not difficult to foresee the shape of the Canadian wireless industry over the next few years. Along with the roles the new entrants want the government to play, it is equally important to look at the roles the new entrants do not want the Government to play namely: 1) they do not want the Government to establish roll-out requirements; and 2) they do not want the Government to limit their ability to sell the spectrum. With no roll-out requirements, and 10 years of in-territory roaming at Government set below market rates, facilities-based competition will grind to a halt. There is simply no economic incentive for a new entrant to continue to spend hundreds of millions of dollars on network expansion, especially in rural areas, when they can rely on the incumbents' networks at subsidized rates. Instead, they will focus their efforts on the already highly penetrated, lucrative urban markets. Meanwhile, the incumbents could also suspend network expansion because with 10 year in-territory roaming at Government set rates, network expansion by the incumbents provides them with no competitive advantage and no commercial returns. Ultimately, the new entrants will sell out and provide themselves and their investors with (Government assisted) supernormal returns. This cannot be what the Government envisioned when it established the set-aside in 2007.

Rural Deployment

121. The 700 MHz spectrum represents an important opportunity to deliver next generation wireless service to every region of Canada and help close the urban-rural digital divide. With its propagation characteristics, it can overcome some of the many factors that make delivering wireless service in Canada's more remote places economical.

122. Several carriers recognized the 700 MHz spectrum's potential. Shaw noted "*that 700 MHz spectrum is uniquely suited for rural broadband deployment programs.*"⁹² SaskTel agreed, explaining its belief that "*the 700 MHz spectrum is the most suitable spectrum alternative to economically serve rural areas*".⁹³ It is therefore clear that carriers with a history of rural deployment must have access to this key spectrum resource. Otherwise, rural wireless service will lag that of the cities.

123. Unfortunately, some carriers based their need in part for 700 MHz spectrum on its ability to deliver rural service despite having no intention to actually deliver such service. Mobilicity argued that it needs the 700 MHz spectrum to "*provide cost effective coverage outside of the core urban markets.*"⁹⁴ Public claimed it needs "*more spectrum in order to deliver service to rural areas.*"⁹⁵ Wind explained new entrants like itself needed the 700 MHz spectrum "*to build out their networks beyond urban areas more rapidly and at a much lower cost than they are able to do with AWS spectrum and than they could do if they were to license spectrum in the 2500 MHz band.*"⁹⁶ Unfortunately, these claims are hollow.

124. Despite claiming they needed 700 MHz spectrum for rural deployment, their silence on what measures should be taken to improve rural service reveal their true intentions. While carriers like Rogers, Shaw and Videotron propose roll-out requirements to ensure

⁹² Shaw Comments, para 107.

⁹³ SaskTel Comments, para 92.

⁹⁴ Mobilicity Comments, para 16.

⁹⁵ Public Mobile Comments, para 36.

⁹⁶ Wind Comments, para 67.

the 700 MHz spectrum's rural capabilities are not wasted, Mobilicity, Public and Wind all fail to provide any commitments that they will launch in rural Canada. In fact they make it clear they will not. Despite arguing they need 700 MHz spectrum to provide service outside core urban markets, Mobilicity opposes any roll-out requirements because "*there are programs being implemented to address the rural broadband divide*"⁹⁷ and because "*Bell and Telus' national HSPA+ network is said to cover 93% of Canadian already.*"⁹⁸ Apparently Mobilicity is only interested in bringing competition to the lucrative urban markets while conceding to the incumbents the costly rural markets. While arguing they need 700 MHz spectrum as it makes rural roll-outs cost effective, they then admit they will not deploy in rural Canada as it is too expensive.

125. Public also opposes rural roll-outs. While arguing it needs more spectrum for rural roll-outs, it expects the Canadian taxpayer to pay for it. It state "*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.*"⁹⁹ Wind Mobile simply ignored the whole issue of rural deployment completely.

126. The new entrants' rural deployment intentions become even more transparent when viewed next to their request to extend in-territory roaming for another 5 years. As discussed earlier, taken together, there is no incentive for a new entrant to roll out when they can continue to roam on incumbent networks outside their core urban markets, especially at artificially discounted rates.

127. Since their launch it is clear that most new entrants have no intention to deploy in rural Canada. They criticize Canada's penetration levels but then only launch service in Canada's highly penetrated cities while ignoring the lower penetrated rural regions. It is clear from their 700 MHz submissions that this strategy will continue.

⁹⁷ Mobilicity Comments, para 253.

⁹⁸ Mobilicity Comments, para 238.

⁹⁹ Public Mobile Comments, para 126.

Appendix 1

-----Original Message-----

From: Sharon Ledwell [<mailto:SLedwell@WindMobile.ca>]
Sent: Sunday, December 20, 2009 12:10 PM
To: Glenn Freer; Robert Beredo; Laurence Amar; Rosie Pandit
Cc: Brenda Stevens; Simon-Pierre Olivier; David Nearing; Peter Lang; Joanne Dupuis; Mireille de Reland
Subject: Wind Mobile Commercial Porting

Folks,

As you may know, Wind Mobile's commercial launch was this past Wednesday in Toronto and surrounding areas and Friday in Calgary. We wish to inform you that we plan to begin porting numbers in both of these markets effective Monday, December 21.

Thank you for your cooperation in working with us to complete the INPOA, the ICP Testing and updating your production systems with Wind Mobile's data. Also please note that Wind Mobile contacts have been updated recently and are available on EDOCs.

Regards and Merry Christmas,

Sharon Ledwell, P.Eng
Director Carrier Interconnection
Globalive Wireless Management Corp.
207 Queen's Quay West
Suite 710, PO Box 114
Toronto ON M5J 1A7
T: 416 637 2374
M: 416 904 0480

-----Original Message-----

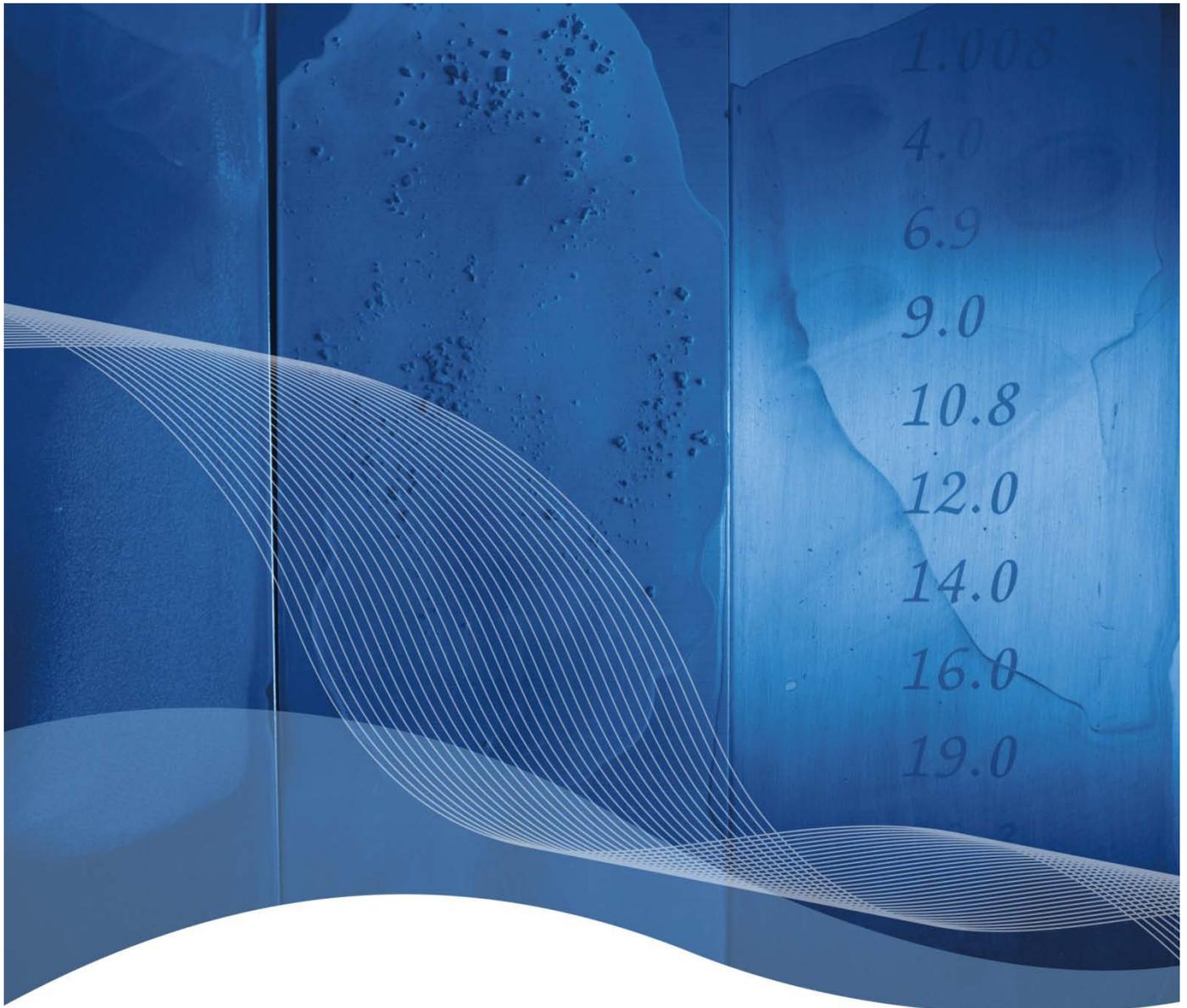
From: Sharon Ledwell [<mailto:SLedwell@WindMobile.ca>]
Sent: Saturday, December 19, 2009 11:44 AM
To: Mireille de Reland; Robert Beredo; Laurence Amar; Rosie Pandit; Michael Adesina
Cc: Brenda Stevens; Glenn Freer; Simon-Pierre Olivier
Subject: RE: Status of Rogers/Wind ORT

Folks,

In our rush to ensure that we'd met the criteria for exiting ORT testing we forgot one important thing, the thank you. Thank you for working with us to advance the timing of ORT, for updating your systems during brown out, and for your professional and collaborative approach. I think this bodes well for any issues we encounter going forward and I believe that the work that we've accomplished has allowed us to develop relationships that will be essential to resolving any such issues.

Thanks again and Merry Christmas,

Sharon Ledwell, P.Eng
Director Carrier Interconnection
Globalive Wireless Management Corp.
207 Queen's Quay West
Suite 710, PO Box 114
Toronto ON M5J 1A7
T: 416 637 2374
M: 416 904 0480



Sydney

2 Park Street Sydney NSW 2000 Australia
GPO Box 3810 Sydney NSW 2001
T +61 2 9263 4000 F +61 2 9263 4111

Melbourne

120 Collins Street Melbourne VIC 3000 Australia
GPO Box 90 Melbourne VIC 3001
T +61 3 8656 3300 F +61 3 8656 3400

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International roaming and handover practices

Summary survey report

Rogers Communications, Inc.

30 March 2011



LAWYERS

Contents

		Page
1	Background	2
2	Scope of work	2
3	Do the regulatory regimes surveyed require wireless operators to grant other wireless operators a mandatory roaming service?	3
4	Do those jurisdictions with mandated roaming require “seamless” handoff?	3
5	Tabulated results	4

1 Background

Rogers Communications, Inc. ("**Rogers**") is currently involved in two regulatory proceedings in Canada:

- The first proceeding involves a complaint filed with the Canadian Radio-television Telecommunications Commission ("**CRTC**") by a competitor of Rogers. The competitor has alleged that Rogers is providing itself with undue preference by not providing 'seamless handoff' to domestic roaming partners.
- The second proceeding involves a fact finding exercise by Industry Canada to determine what measures, if any, Industry Canada should adopt to 'sustain' wireless competition in Canada when allocating 700MHz spectrum. We understand that several competitors have requested that seamless handoffs should be mandated, including Wind Mobile ("**Wind**"). Currently, Roger's Conditions of Licence do not mandate seamless handoffs.

For the purposes of this report, "roaming" is understood to describe a service provided by one wireless operator (the roaming service provider) to another service provider (the requesting operator) that enables a customer of the requesting operator to originate and receive communications when out of range of the home network of the requesting operator.

For the purposes of this report, "seamless handoff" is understood to mean that an in-progress call continues and is not terminated when a customer transitions from his or her home network onto the roaming service provider's network and vice versa.

For the purposes of this report, "hard handoff" is understood to mean an in-progress call is dropped when a customer transitions from his or her home network onto the roaming service provider's network and vice versa, requiring the customer or the called party to re-initiate the call

2 Scope of work

For the purposes of both proceedings identified above, Gilbert + Tobin has been asked by Rogers to undertake an international comparison that looks at:

- all of the jurisdictions (other than Canada) where Wind (or Orascom as its related company) operates; and
- the rest of the world, as represented by some key jurisdictions.

In total, 24 jurisdictions have been examined by Gilbert + Tobin. A list of these jurisdictions is set out in the tabulated results in section 5 of this report.

Gilbert + Tobin was requested by Rogers to specifically examine the following key issues:

1. Does the regulatory regime in the particular jurisdiction require wireless operators to grant other wireless operators a mandatory roaming service?
2. If yes to the first question above, does the mandated roaming service provide for "seamless" handoff?

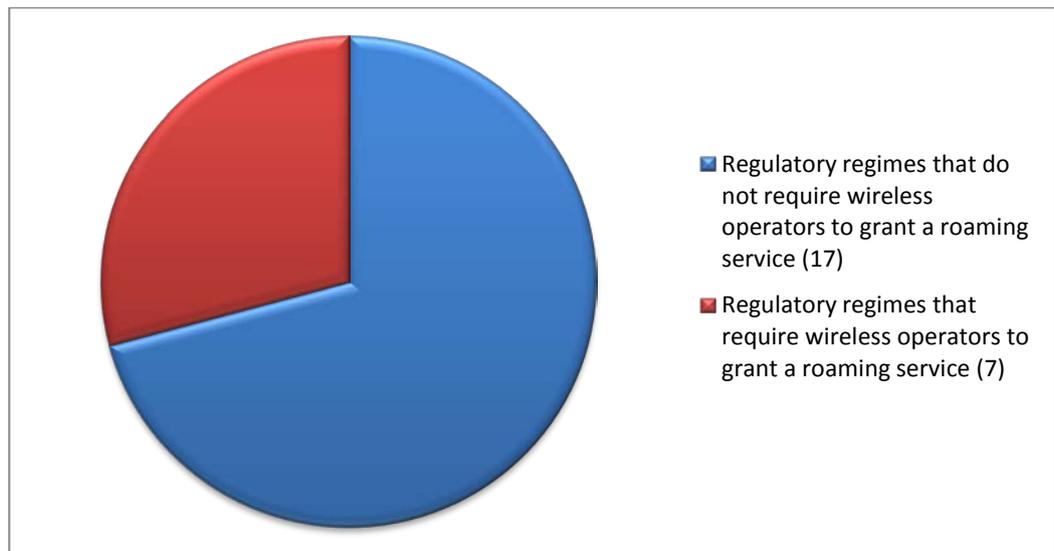
Gilbert + Tobin's conclusions are summarised in this report.

3 Do the regulatory regimes surveyed require wireless operators to grant other wireless operators a mandatory roaming service?

Gilbert + Tobin examined 24 jurisdictions as set out in the table in section 5 of this report.

Of these 24 jurisdictions, only 7, including Canada, require wireless operators to grant other wireless operators a mandated roaming service, as shown in Figure 1 below:

Figure 1 – Proportion of jurisdictions that mandate roaming



As a general rule, the overwhelming majority of jurisdictions we surveyed allow wireless service providers to voluntarily enter into roaming relationships rather than mandating the provision of such service.

In jurisdictions where mandated roaming has been introduced, this is typically in response to specific concerns unique to the particular jurisdictions. The regimes may also include mechanisms to ensure minimum levels of facilities-based competition occur. For example, New Zealand and Italy both contain mobile coverage thresholds that must be met by access seekers before they can obtain roaming access to other networks.

4 Do those jurisdictions with mandated roaming require “seamless” handoff?

Of the 24 jurisdictions examined by Gilbert + Tobin, only 7 required mandated roaming. Of these 7 jurisdictions, none mandated the extent, if any, of call hand-off.

As we understand it, those jurisdictions that mandate roaming leave the precise form of roaming to be determined by commercial agreement between the parties. While regulatory oversight may be available in the absence of commercial agreement in some jurisdictions, we are not aware of any oversight being required in relation to the form of roaming.

5 Tabulated results

	Does the regulatory regime require wireless operators to grant other wireless operators a mandatory roaming service?	If yes to the first question, does the mandated roaming service provide for “seamless” handoff?
Algeria	No	N/A
Australia	No	N/A
Bangladesh	Yes	No
Belgium	No	N/A
Brazil	No	N/A
Burundi	No	N/A
Canada	Yes	No
CAR (Central African Republic)	No	N/A
Egypt	Yes	No
France	No	N/A
Germany	No	N/A
Greece	Yes	No
Italy	Yes	No
Japan	No	N/A
Lebanon	No	N/A
Namibia	No	N/A
New Zealand	Yes	No
North Korea	No	N/A
Pakistan	No	N/A
Russia	No	N/A
Tunisia	No	N/A
United Kingdom	No	N/A
United States	Yes	No
Zimbabwe	No	N/A