



Tuesday, April 05, 2011

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**Re: Reply Comments – Canada Gazette Notice SMSE-018-10, “Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum”**

Dear Mr. Florea;

Niagara Networks is pleased to provide this reply comments submission to comments provided by other parties with respect to Canada Gazette Notice SMSE-018-10 dated December 4, 2010. We appreciate this opportunity to respond on this very important policy issue.

Attached are the comments of Niagara Networks in regard to the above noted consultation document. Should you wish to discuss these comments, please do not hesitate to contact us.

Sincerely,

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## Introduction

Niagara Networks appreciates this opportunity to respond to comments submitted by interested parties in reference to Notice No. SMSE-018-10, "Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum". Niagara Networks appreciates and acknowledges the detail and complexity of issues submitted in the response and we applaud all for their thoughtful input and insights. We anticipate the result of this consultation will be a well run auction process that will successfully implement the Department's policy initiatives of promoting competition in the market. Niagara believes these initiatives are in the best interests of all Canadians. Niagara Networks has reviewed the concerns of parties who submitted comments.

## Demand

We note that virtually all commercially interested parties were in favor of the department providing more spectrum resources to industry at this time. Niagara agrees with this conclusion and urges the Department to make available these spectrum resources as early as possible to meet demand.

## Arguments Against Promoting Competition

We note new entrant responses were in favor of initiatives to be implemented by the Department to continue the support of and foster more competition in the wireless sector. As expected, the Big 3 believe that no further intervention by the Department is required as obviously, they do not want competition to fully evolve and entrench in Canada. In fact, on an argument by argument basis, the Big 3 attempt to develop arguments that appear to be compelling on the surface. On closer examination however, the arguments fall apart. That is because the Big 3 selectively include certain issues or facts while neglecting to include all of the issues or facts that do not support the argument at hand.

For example, the Big 3 agree that enterprise values for Orascom/ Vimpelcom (\$33 billion), Shaw (\$15 billion), Quebecor (\$ 7.5 billion) suggests that none of these entities needs the support of the Department. On the surface this looks like a compelling argument but what does it really mean?

Looking closer, the Big 3 know that the cost of spectrum no matter what the Department does in terms of supporting competition is only an incremental cost to them. These costs are easily covered by mere months' of existing revenue. The Big 3 won't have to build anything; they just put the newly acquired spectrum on the shelf and pull it down whenever they might need it. That may even be a decade or two down the road. The Big 3 know that any new entrant must build a competing network which may be state of

the art making their networks appear inferior to consumers. That would be more costly than the spectrum itself to keep them from really competing.

Next, the Big 3 can further frustrate and cause a network build out to be even more expensive by frustrating deployment in terms of delaying site sharing arrangements and denying reasonable roaming arrangements.

Next, irrespective of the ability of a new entrant to compete on an enterprise level, the Big 3 know that any business model must make sense in the market for which it is intended. Keeping any competing business model from making sense is the entire game for the Big 3. Holding superior spectrum and network resources are the key. The Big 3 have other revenue sources to bundle in with their offerings and have vast and diverse spectrum resources as well as paid for networks to compete in all segments of the market. The Big 3 all, can and have launched flanker brands using off the shelf spectrum bandwidth and unused network resources to deploy and conquer any competitive threat. The sheer diversity of spectrum options available to the Big 3 means they can and will control the market for many years to come. Without equally diverse spectrum assets, no new entrant regardless of their enterprise value can even begin to compete with the big three under the status quo in the Canadian market. Access to spectrum is the first linchpin in undermining the Big 3's grip on the market and pricing.

Finally, viewing this same enterprise argument from another perspective, the Big 3 are in essence "admitting" that they will spend whatever it takes in an auction to keep competition from entrenching in the market. Why? Because the Big 3 can cost effectively outbid everyone given their other revenue streams, their established customer base, spectrum and network resources available. That creates the unlevel playing field we have today. It's amazing the Big 3 would even try to use such an argument which is little more than an admission of their auction strategy to maintain a competitive edge in the market.

### Promoting Competition

As a result of this consultation it has become more than obvious that there is a great disparity between new competition and the Big 3 due to the richly diverse and available spectrum resources to each. Niagara Networks is resolute in our opinion that the Department must provide more of the available spectrum resources to new entrant competition. All of the Big 3 respondents failed miserably to provide any real rationale in their submissions as to why they need the 700 MHz resource at this time. We conclude that the need can only be for the purpose of restricting further competition in the market. The policy to promote more competition must be applied now and likely in future competitive processes if real competition is to ever become entrenched in the Canadian market. Simply stated, the Department needs to level the competitive spectrum resource playing field for the benefit of all Canadians.

## Spectrum Caps and Set Asides

It goes without saying that none of the Big 3 were in favor of any set asides. They made many arguments as to why they needed 700 MHz spectrum but on closer examination these arguments simply do not hold water. All of the Big 3 has ample spectrum resources below 1 GHz to achieve all of their goals in the short and long term. LTE can be implemented in any of their 800 MHz, AWS, PCS or 2500 MHz spectrum holdings. We note that Bell and TELUS share a network at 800 MHz. New entrants on the other hand need access to these resources in order to begin to level the playing field and break out from the voice based service offerings. Currently, new entrants have impacted the lower pricing end of the market but the Big 3 have countered with flanker brands to slow churn and protect the high margins of their premium brands. In order for new entrants to penetrate those markets and drive down overall market pricing, new entrants need access to as much spectrum diversity as possible.

While there were are allot of thoughts as to whether caps or set aside should apply, many new entrants suggest that none of the Big 3 be allowed to participate in the 700 MHz spectrum auction. That being said, these respondents inherently support a set aside. Only the cable co's new entrants suggested some form of spectrum caps. It is Niagara's view that we agree with most industry participants that Bell and TELUS should be treated as one entity for this auction. Therefore, Niagara would recommend that a minimum of 80% of all available spectrum should be set aside for new entrants only and that Rogers & either TELUS or Bell could bid on the 20% non set aside spectrum. Further, the assertion that new entrants "parked bids" in the AWS auction is ridiculous. We discuss that in more detail later and provide rationale for why the Department should ignore this claim. With that, we believe that new entrants should be allowed to bid on all available spectrum.

## Band plan

It appears that most industry participants would prefer alignment with the United States Band Plan. Niagara has no problem with this band plan should the Department decide this would be in the best interests of the industry.

## D Block

Where respondents provided comment we note that most were in favor of waiting until the FCC makes a decision before releasing the spectrum. Niagara still does not share that view with other respondents noting that there is a definite need to get more spectrum in the hands of new entrants as soon as feasibly possible. As virtually all parties agree that Public Safety could be made to work with a commercial carrier, it makes no sense to wait on a foreign authority to determine the development of the Canadian market. We therefore submit that the Department consider releasing D block along with the rest of the spectrum at this time.

### Public Safety

Where respondents provided comment it appears that most agree that Public Safety agencies could work with a commercial carrier. As we noted in our submission, the prospect of building a national network would be cost prohibitive. Niagara therefore recommends that commercial carriers should be mandated to work with Public Safety agencies to provide for their needs.

### Roaming and Site Sharing

In our response comments Niagara Networks did not include any comments with respect to “Roaming and Site Sharing” issues. We are aware there will be an additional consultation to discuss this in more detail. However, we note the number of submissions primarily by new entrants that feel this is a priority issue to discuss. Therefore we will respond briefly to this as back in 2008 we had warned the Department that the Big 3 would likely try to abuse the arbitration process to delay and frustrate the launch of competitive service. Obviously that has been the case. Further, Rogers warns in their submission that finding sites is becoming too much for carriers to deal with for various reasons beyond their control.

With that, Niagara recommends we revisit this issue via consultation sooner rather than later in order to agree on an amicable solution for all parties concerned and well before the auction process itself. In particular, we recommend the Department consider a third party be appointed/ required to take over the task of handling all cell sites and that carriers should hand over the cell site responsibility through divestiture within a reasonable time frame. The third party could be appointed or an independent commercial entity could make arrangements with carriers directly but the divestiture needs to be mandated by the Department to keep things fair for all. Similarly, a wholesale roaming cap of some sort needs to be put in place.

### Timing

We note that where respondents replied, that the largest number suggested that as the 700 MHz and 2500 MHz bands are complementary, the auctions should be held simultaneously. Most other respondents suggested that 700 MHz should be held first but at least one suggested that 2500 MHz should be held soon afterwards. TELUS was the notable exception requesting the 2500 MHz auction be held first. As a result of reading respondents suggestions, Niagara maintains that the 700 MHz and 2500 MHz auctions should be held simultaneously.

## **Reply Comments to Respondents**

### **The Big 3 - Bell**

Not much has changed since the AWS auction consultations. All of the Big 3 once again is proclaiming much of what they did last time around. The claims while equally fantastic as before are merely supported by more up to date references stating that the market is aggressively competitive and no more intervention by the Department is required to foster competition. Many of the arguments put forth by the Big 3 are not based in reality and as such, their arguments fall apart easily. For instance,

From Bell we get<sup>1</sup>;

*“Bell Mobility offers the largest array of wireless devices available in Canada including leading edge smartphones, Turbo Hubs, Turbo Sticks and tablets. Its products and services are distributed throughout Canada at thousands of corporate, dealer and retail outlets.”*

Bell goes on to discuss their investment over the years but conveniently neglects to discuss why it took them over a decade to deploy a state of the art HSPA network. As of 2010, Bell can boast the “largest”... “in Canada” but why did they lag behind the world for so long in terms of deploying a state of the art network. Obviously, the threat of competition in 2007 as imposed by the Department caused them to act.

Bell argues the Big 3 need the 700 MHz spectrum more than anyone because they have millions of customers. Further they suggest that with the 700 MHz spectrum they will finally be able to serve rural customers.<sup>2</sup>

*“Carriers who operate on a regional or urban basis do not have the same dire need for this spectrum as do the national carriers who have millions of urban subscribers, but also serve most every rural and remote corner of our country.”*

And

*“Indeed, as addressed below, our deployment plans for rural and remote regions is fundamental to our 700 MHz strategy.”*

And

*“In short, entities with a commitment to serving all Canadians, with a track record of investing in Canada, creating jobs in Canada and introducing technological innovations to all Canadians in all parts of Canada must be given a fair opportunity to access 700 MHz spectrum.”*

And<sup>3</sup>

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<sup>1</sup> Bell submission Pg. 2, Paragraph 5

<sup>2</sup> Bell submission Pg. 2, Paragraphs 6 - 9

<sup>3</sup> Bell submission Pg. 8, Paragraph 23

*“Any attempt to establish a set-aside will severely restrict the spectrum available and seriously risks diminishing the broadband capability of millions of Bell Mobility’s existing customers, while hampering our ability to deploy broadband capability to rural and remote Canada.”*

Bell threatens that if they are not allowed to dominate the 700 MHz spectrum auction, then simply, Rural and Remote (R&R) communities will suffer because Bell will not be there to develop resources for these communities. However, Bell neglects to mention that they have vast spectrum resources in the 800 MHz range they have held since the 1980’s in these very communities. Also, Bell has an overwhelming amount of 2500 MHz spectrum via their Inukshuk venture with which they could have already serviced these communities. Furthermore, Bell has wireline facilities into many of these communities and has continually refused to offer ADSL service. Given that Bell has so many ways to service these communities already and has flatly refused to do so, how can we possibly take Bell seriously that if they get 700 MHz they will all of the sudden start to deliver adequate service.

We note that Bell agrees with Niagara that the cost of building a separate Public Safety network would be cost prohibitive. Further we both believe that Public Safety should be able to come to an amicable arrangement with a commercial carrier. Finally, we also agree that the largest tier sizes should be made available to a commercial carrier who supports Public Safety. Niagara agrees with Bell that it would be better for Public Safety networks to utilize a commercial carrier to provide such services.<sup>4</sup>

*“Bell Mobility continues to be of the view that commercial systems do have a role to play in the provision of public safety services. We note that a ubiquitous public safety system would be cost prohibitive and would take significant time to build. The most cost effective and timely use of broadband by public safety, in Bell Mobility’s view, requires the use of commercial services for the foreseeable future.”*

And<sup>5</sup>

*“Bell Mobility does not believe that specific rules should be mandated by the Department to make such a system viable. Given that LTE technology is able to accommodate the vast majority of public safety service requirements, commercial operators and public safety entities should be left to reach suitable arrangements without regulatory intervention.”*

And<sup>6</sup>

*“Bell Mobility does not believe that commercial operators should be mandated to support public safety services. However, as outlined in our response to question 5-7, Bell Mobility is of the view that as it is very likely that the public safety community will not have 700 MHz networks initially deployed outside of the major centres, consequently, reliance on commercial networks will inherently meet their roaming requirements in the suburban and rural areas of the country. As a result, we suggest that the largest tiers would be the most favourable to support this kind of roaming.”*

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<sup>4</sup> Bell submission Pg. 13, Paragraph 34

<sup>5</sup> Bell submission Pg. 15, Paragraph 44

<sup>6</sup> Bell submission Pg. 16, Paragraph 51

Bell refuses to admit that the actions taken by the Department in the AWS auction to promote more competition in any way have increased the markets competitiveness. On the topic of the potential use of set asides in the upcoming 700 MHz auction, not surprisingly, all of the Big 3 are against it. The one argument they commonly pose is that New Entrants use “Gaming” tactics during the auction to drive up the cost of spectrum. In Bells argument,<sup>7</sup>

*“While some will argue that regulatory measures were required in the AWS auction, the benefits achieved were far from costless. The spectrum set-aside in the AWS auction increased the costs to the Canadian wireless industry by hundreds of millions of dollars through both the reduction in the supply of spectrum for incumbents, and the creation of gaming opportunities for new entrants which allowed them to bid on both set-aside (i.e. restricted) and non-set-aside (i.e. unrestricted spectrum).”*

The Big 3 all try to take credit for increased competition in the market and/ or recent deployment of state of the art technologies. From Bell we get,<sup>8</sup>

*“Canada is not falling behind. A recent article in the National Post<sup>11</sup> newspaper reported that Canada's wireless providers have done far better than their U.S. counterparts in investing for the coming explosion of wireless data.”*

Bell points to a recent article where they can boast about the deployment of their shiny new HSPA network. Bell neglects however to mention that Canada lagged other countries for over a decade in terms of state of the art technology. Niagara humbly submits that without the Departments actions to promote more competition in 2007, the network would likely still be on the drawing board and this article likely would never have been written. Prior to 2007, milking assets was the modus operandi for the Big 3.

Still boasting about how Bell spends money on developing the market, Bell points to one of their “Resistance is Futile – Just Give Us the Spectrum” whitepapers that tries to convince us of the high level of capital intensity they deploy in the market. Apparently, Bell has put Canada well ahead and made us a global leader in technological deployment. Bell is somehow trying to take credit for the Departments actions to promote more competition in the market in 2007.<sup>9</sup>

*“the deployment of new HSPA+ networks, for instance, puts Canada well ahead of several European nations and the United States in the ‘mobile broadband race’.”<sup>13</sup> They go on to conclude that “the high capital intensity of the Canadian wireless industry relative to its international peers also seems incompatible with a view of a passive oligopoly that is behind the international leading edge of mobile deployments,”<sup>14</sup> and that “in fact, a sober analysis would suggest that Canada has come to be something of a leader in deployment of advanced data networks, something that it could not have claimed in 2004.”*

Rightfully the piece notes that Canada being a leader in such deployments could not have been claimed in 2004. We note however, that is why the Department had to take action to promote more competition in 2007 to force this kind of technological upgrade.

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<sup>7</sup> Bell submission Pg. 20, Paragraph 66

<sup>8</sup> Bell submission Pg. 22, Paragraph 70

<sup>9</sup> Bell submission Pg. 23, Paragraph 71

We note that Bell and TELUS have been sharing the cost of networks and spectrum since 2000. While capital intensity for both parties was greatly reduced as a result, ARPU kept on rising without any significant increase in technological deployment or quality of services right up to 2008. We note that in the absence of the threat of any real competition, the Big 3 did very little to deploy state of the art networks and nor was any benefit ever passed on to the consumer in terms of higher quality services at reduced costs until the department acted to promote more competition in 2007.

Bell then discusses how concentration in the market is inevitable. They attempt to deduce that any action by the Department to promote competition is simply, a waste of time.<sup>10</sup>

*“Therefore, the Department's objective must be an efficient and competitive wireless market, and not artificially maintaining a large number of new entrants, many of which have already expressly stated they intended to consolidate. Propping up new entrants, and continually providing them with new entrant concessions (particularly when the new entrants are large and well capitalized), will increase costs and reduce the overall efficiency of the market to the detriment of Canadians.”*

The statement is just simply ludicrous. First, why did Bell not complain about the government propping them up when they were gifted with free licenses back in the 1980's and 1990's? Next, the introduction of competition in 2007 has benefitted Canadians in terms of more choice, better service offerings and somewhat reduced pricing. Where's the detriment?

Bell goes on to discuss how they have been aggressively investing in rural communities. Always putting rural ahead of urban in their statements we note.

*“Bell Mobility has been leading the industry by aggressively investing in its wireless networks in both rural and urban areas. This enables Bell Mobility to offer rural customers innovative services like the Turbo Hub, which connects up to 15 Internet devices in one location, with download speeds of up to 21 Mbps and upload speeds of up to 5.7 Mbps.”*

Bell tries to convince us that they are the service provider who will provide for the R&R communities needs now and into the future. Truth be told, Bell tries to shake the deferral accounts before spending a dime on these communities, they refuse to deploy ADSL, they have vast spectrum resources in 800 MHz and 2500 MHz and they have done nothing to help these communities that does not make economical sense to Bell. If Bell is serious about aggressively investing in these communities it should be interesting to see how many Tier 3 and Tier 4 properties they bid on. In fact, we could take a look at their track record in the past auctions for both bidding and aggressive deployment. Since Bell is so concerned about these communities at this time than perhaps they wouldn't mind being restricted to bidding on only R&R communities in the upcoming spectrum auctions.

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<sup>10</sup> Bell submission Pgs. 28-29, Paragraph 82

Bell goes on to discuss how set asides only drive up the cost of spectrum auctions as new entrants were “gaming” by “parking” bids on non set aside licenses. This entire argument is ridiculous. Bell states,<sup>11</sup>

*“The set-aside increased the costs to the industry by hundreds of millions of dollars by artificially reducing the supply of spectrum available for incumbents and by creating gaming opportunities that altered the efficient allocation of spectrum. This resulted in a disproportionate cost burden being borne by the incumbents. The gaming opportunities were the result of the new entrants' ability to “park” their points on both restricted and unrestricted spectrum. That is, the new entrants had the incentive to bid on spectrum that they did not actually want to buy in order to keep the prices on their desired spectrum from increasing too quickly and to maintain enough eligibility points in order to punish their rivals in later rounds.”*

If any of this were true, then “parking points” would somehow have to be connected to driving up cost for the Big 3 as Bell says. However, the only way that bidding on non set aside spectrum could drive up costs for the Big 3 is if Bell is admitting that their strategy is to pay whatever it takes to not allow any new entrant to win a non set aside license.

Obviously parking points was not the case as the new entrants tried but they were not successful in winning the non set aside licenses. If a new entrant was parking points as the Big 3 suggest, then why would they bid on a higher priced license if they did not have to? Further, why take an unnecessary huge financial risk only to park points? There is nothing to obligate any of the Big 3 to outbid a new entrant. Wouldn't the new entrant have to pay for the license if they bid on it and won it? Obviously they would have to pay so that would not be a practical bidding strategy if only meant to park points. Spectrum auctions are serious events with millions at stake. They are anything but kitchen table poker.

The truth is that the Big 3 themselves were restricted in terms of what they could bid on and had to pay what they valued the spectrum to be worth between themselves. They themselves drove up the cost of the non set aside spectrum. Parking points had nothing to do with it. Further, the Department is obligated to extract the maximum value for the spectrum resources on behalf of all Canadians. The auction then fairly places the spectrum in the hands of those who value it most. New entrants do not have access to the same spectrum reserves as do the Big 3. If a new entrant values a license more, then they should be able to bid on it as more than likely they will use it right away. The Big 3 however has vast and diverse spectrum reserves and still have not deployed their AWS spectrum.

Bell suggests that in an unrestricted auction, those who bid the most in an auction are those who value the spectrum the most and are best able to put it to use,<sup>12</sup>

*“An unrestrained auction is a highly efficient, market-based approach for spectrum management. Auctions tend to assign spectrum to those best able to use it. License applicants that are best able to put*

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<sup>11</sup> Bell submission Pgs. 30-31, Paragraph 90

<sup>12</sup> Bell submission Pg. 34, Paragraph 97

*the spectrum to use are likely to be the ones that bid the highest. Auctions are also a transparent means of assigning licenses since all parties can see who won the auction and why.”*

Bell makes this statement but we note, the new entrants have put their spectrum to use already and the Big 3 have not. The Big 3 did not pay more for their non set aside spectrum because they bid against each other and paid what they valued the spectrum to be worth. The point is the Big 3 outbid everyone including the new entrants for the spectrum they purchased and still they have not used it. So if the statement above is true, then the value of the spectrum to the Big 3 must be something other than putting it to use. Obviously, the Big 3 view the spectrum as the lowest cost means to maintain a strong competitive advantage.

We note, many new entrants and Rogers view Bell and TELUS as one bidder. The fact that they share networks and spectrum clearly provide them with an unfair advantage over any other competitor bidding in an auction.

**Niagara is also of the opinion that the Department should revise the definition of the term “affiliate” to include those parties that share both network and spectrum resources to a large extent. In such case only one party may be viewed as a qualified bidder and the other must remain on the sideline in the upcoming auction.**

Bell goes on to explain how hoarding spectrum is fully consistent with efficient spectrum usage and not otherwise done to create a competitive advantage.<sup>13</sup>

*“However, having “holding inventories” of spectrum is fully consistent with efficient spectrum use, since it allows network operators to implement capital investments on infrastructure more efficiently and effectively. Moreover, it is simply too costly for wireless providers to obtain spectrum that it is not going to put to productive use. As a result, Bell Mobility submits that “warehousing” or “hoarding” of spectrum by large national wireless network providers in order to reduce competition and restrict output is simply not an issue. All mechanisms such as spectrum set-asides will do, is decrease the opportunity for 700 MHz spectrum to be put to productive use for both rural and urban Canadians.”*

This argument is ridiculous when considering the vast spectrum reserves the Big 3 are warehousing. The Big 3 know that if they require more spectrum because they are getting down to their last MHz of reserve bandwidth, they can approach the Department and trigger a process such as this consultation to get more. Certainly, Canada has no more need than any other country including the United States and the need for more spectrum should be well known prior to any of the Big 3 running out of warehoused spectrum. In fact, it will likely be new entrants precipitating auction processes for some time to come. Further, Niagara believes Canadians feel more secure having the Department warehouse our spectrum as opposed to any of the Big 3.

Next, Bell claims that set asides decrease the opportunity for 700 MHz spectrum to be put to productive use for rural Canadians.

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<sup>13</sup> Bell submission Pg. 38, Paragraph 109

Again we note Bell's concern for rural Canadians. We note we have seen their track record as to how quickly and aggressively they put their 800 MHz, 2500 MHz or even their AWS spectrum holdings to use to try to service these R&R communities. How can we take Bell seriously that they need 700 MHz spectrum to service R&R communities given the vast resources they have available to them right now to accomplish the same goal.

Bell goes on to try and convince us how it is not cost effective for the Big 3 to simply buy up spectrum in order to maintain a competitive edge.<sup>14</sup>

*"The Consultation raises concerns that in order to protect or enhance competition in the Canadian wireless market, mechanisms such as spectrum set-asides or spectrum caps are required in order to ensure that large providers do not bid too aggressively for spectrum in order to "warehouse" spectrum and restrict output. However, the benefits of outbidding an entrant are dubious especially if outbidding results in a significant cost disadvantage relative to other wireless operators in the market. No one operator can afford to significantly increase its cost relative to the other operators in the market and still remain competitive. Thus, a wireless operator will not want to spend hundreds of millions of dollars more than its rivals in order to acquire spectrum which it will not put to productive use."*

In response to this statement the facts are clear. In 2001 and even the 2008 non set aside spectrum, the Big 3 won all of the meaningful spectrum they could bid on in both processes. As a result in 2001 in particular, no new meaningful competition was introduced. So history in the Canadian market does not support the statement above nor Professor Katz's follow on tutorial in the next paragraphs of Bell's submission.

Next, clearly there is not an apples and apples comparison here. Bell's statement above considers all market competitors to be on a relatively equal footing. That simply is not the case in the Canadian market. The Big 3 have, other sources of revenue to draw upon, paid for network infrastructure and vast spectrum reserves. They also have established distribution and millions of revenue producing clients going into an auction. Even in terms of the 2008 AWS spectrum costs, that cost represented mere months' of revenues to the Big 3. Factoring all of that into the equation we now have a group of new entrant bidders trying to establish themselves in the market on debt and equity and very little if anything else on the ground. Having said that, what would be the least expensive means for the Big 3 to maintain their huge competitive edge? Would it be to spend months of revenue to ensure competitors don't get a foothold in the market by buying up all of the meaningful spectrum? Or, would it be to actually compete with new entrants once they have established a relatively equal sized network infrastructure, comparable numbers of subscribers/ revenue and on par spectrum reserves? On spectrum reserves alone the threat of flanker brands would be eliminated and margins on the main brands would be at risk. Perhaps Professor Katz would be kind enough to help do the math for us and answer the question.

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<sup>14</sup> Bell submission Pg. 39, Paragraph 113

In conclusion, Bell has access to vast and diverse spectrum reserves of 850 MHz and 2500 MHz spectrum as well as wire line facilities into many R&R communities. Bell's track record of concern to serve any of these R&R communities is a matter of public record. Bell checks the deferral accounts first before acting. If it's a no go there then they service areas closets to the edge of their network. ADSL is not an option. Realistically, Bell can use its spectrum holdings of 850 MHz spectrum and 2500 MHz spectrum or wire line assets to service the R&R communities. Bell fails to prove they need 700MHz spectrum to service any of these R&R communities. Niagara submits that Bell is more interested in keeping new entrants from acquiring a level playing field. Until such time that Bell demonstrates its commitment to these R&R communities using the resources they already have they should be restricted from participating in both the 700 MHz and 2500 MHz and possibly future spectrum auctions.

### The Big 3 - Rogers

Not surprisingly, Rogers all of the sudden shares Bell's concern for R&R communities. We note that they co-own Inukshuk and have vast spectrum holdings at both the 800 MHz and 2500 MHz range to implement any plan in these communities. Simply, arguing that they need access to bid on all of the 700 MHz spectrum in order to ensure R&R communities are not underserved makes absolutely no sense. Using their existing resources they both have failed to adequately serve these communities. Why should we believe that 700 MHz spectrum will in any way make a difference? In fact it won't. As history demonstrates, the Big 3 will hoard the spectrum for the sole purpose of thwarting any real competition from becoming entrenched in the market.

Rogers makes pretty much the same basic claims as the other members of the Big 3 with the addition of the following.

Rogers is now concerned about spectrum hoarding. We get the following from Rogers,<sup>15</sup>

*"In light of the fact that 700 MHz spectrum will be a critical enabler of mobile broadband services, especially outside urban centers, Canada's 700 MHz policy must discourage hoarding of this vital resource. Canada cannot afford to let 700 MHz spectrum lie underutilized in the hands of spectrum speculators while its major trading partner has already begun to exploit this spectrum and to unlock the economic and social benefits arising from its use. To prevent spectrum hoarding, successful bidders must be subject to rollout requirements."*

While we tend to agree with Rogers to a point, we wonder if they would be willing to extend that policy to all of their spectrum holdings along with the rest of the Big 3. We think that would be unlikely.

Rogers tries to make a case that they require access to 700 MHz because it is the only way they can deliver LTE technology.<sup>16</sup>

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<sup>15</sup> Rogers submission Pg. 5, Paragraph 6

<sup>16</sup> Rogers submission Pg. 8, Paragraph 15

*“However, the 700 MHz band is not simply a springboard for launching LTE and for gaining access to a vitally important ecosystem. It is also currently the only LTE band in which operators can implement ubiquitous LTE services. This is due to the superior propagation characteristics associated with this low-band spectrum. Operators that will be launching LTE must have 700 MHz spectrum in order to provide reliable in-building coverage and ubiquitous urban and suburban outdoor coverage. Otherwise, consumers and business users will drop down to HSPA+ service when they use their LTE services and applications inside buildings and when they are between coverage areas.”*

Rogers discusses how businesses and other consumers will be deprived of the advantages of LTE if Rogers do not get access to this spectrum. The truth is Rogers has vast spectrum reserves at both 800 MHz and 2500 MHz which can both be used with LTE. Further, Rogers 800 MHz spectrum has very similar characteristics to the 700 MHz spectrum they covet in this auction. Rogers can and will use their 800 MHz spectrum to deliver LTE eventually. Further, the differences in throughput between the HSPA and LTE technologies will not be that much.

What will make a difference though is if the Big 3 can keep this spectrum out of the hands of new entrants or at best minimize the amount available to new entrants. In doing so, the Big 3 can maintain their vast and diverse spectrum holding advantage, which translates to a services offerings advantage and thereby force new entrants to continue to fight the battle over voice only services against their flanker brands. The big losers will be corporate Canada and other high end users as the Big 3 will continue to dictate pricing for many years to come.

Niagara agrees with Rogers that both 700 MHz and 2500 MHz should be auctioned simultaneously.<sup>17</sup>

*“Because the 700 MHz and 2500 MHz bands are complementary bands that are required for the implementation of ubiquitous LTE services in Canada, the Department should auction the 700 MHz and 2500 MHz bands at the same time, in mid-2013.”*

Rogers discusses they cannot use their 850 MHz spectrum for LTE because they have too many subscribers on it now and equipment will not be ready for many years to come.<sup>18</sup>

*“LTE technology and consumer devices will not be available for the 850 MHz band for many years to come. We note that, in a February 2011 report, the Global Mobile Suppliers Association (GSA) indicates that 180 operators are investing in LTE around the world and that there are no LTE user devices that are currently being manufactured for operation in the North American 850 MHz cellular band.<sup>21</sup> In any event, since the 850 MHz band will continue to be used by Rogers to serve its millions of customers and roamers that use legacy technologies such as GSM and HSPA, the capacity required to implement reliable LTE services will not be available in Rogers’ licensed 850 MHz spectrum. We believe that the major U.S. carriers are in precisely the same position and that this is why there will be no movement towards the manufacture of LTE devices for use in the 850 MHz band for several years.”*

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<sup>17</sup> Rogers submission Pg. 10, Paragraph 19

<sup>18</sup> Rogers submission Pg. 17, Paragraph 19

The truth is, new entrants found a way to get equipment manufacturers (who by the way are hurting right now for sales) to build for the spectrum they have. We note all of the Big 3 snubbed the spectrum Public purchase in 2008. Public is delivering services. We are sure Rogers will find a way as well. Further, later in their submission Rogers discusses how they are prepared to do deals with local R&R's who they deem have solid business cases. In that train of thought, restricting Rogers (and all of the Big 3 for that matter) from this spectrum would perhaps force them to play nice in the sand box in terms of roaming and site sharing. That is if they have to work with others to get access to the spectrum, there may just be some new reasons to form meaningful partnerships rather than just bully everyone around. Just because any of the Big 3 do not get access to bid on this spectrum it will not be the end of the world. Competitors can work together, just ask Bell and TELUS. Perhaps it's time the Big 3 start to roll up the sleeves and start making some mutually beneficial deals with new entrants.

To their credit, Rogers admit they do not really have to have access to 700 MHz to deploy LTE. We applaud Rogers for admitting that.<sup>19</sup>

*"In the near term, LTE technology and consumer devices will also be available in the 1700/2100 MHz AWS band, the 2500 MHz BRS band (and, possibly, the 1900 MHz PCS band), but the technology ecosystem for these spectrum bands is lagging that of the 700 MHz band. Nevertheless, Rogers will be using this spectrum to deploy LTE in large urban centers."*

Rogers discusses the challenges of acquiring new sites to deliver wireless services.<sup>20</sup>

*"As the Department is aware, it is becoming increasingly difficult for wireless carriers to add new roof-top and tower sites, particularly in urban and sub-urban areas, due to local concerns."*

**Niagara is of the belief that an unbiased third party should take over the task of acquiring and leasing cell sites. This could be a commercial entity appointed by the Department or a simple mandate to sell sites off to commercial entities willing to undertake the task. Obviously the carriers are becoming too stretched and it is time for the Department to require that all carriers divest themselves of these cell sites. This consideration should be made part of the upcoming consultation for roaming and site sharing as a benefit to all industry participants.**

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<sup>19</sup> Rogers submission Pg. 17, Paragraph 38

<sup>20</sup> Rogers submission Pg. 18, Paragraph 40

Rogers agrees with virtually all new entrants that it is time to consider Bell and TELUS as one entity.<sup>21</sup>

*“The charts also similarly understate the extent to which some companies have pooled their spectrum. For example, the charts do not reflect the fact that Bell and Telus have pooled their respective 850 MHz cellular spectrum holdings to operate their joint HSPA+ network.”*

Niagara is in agreement that the fact that Bell and TELUS share both spectrum and network facilities represents an extremely unfair bidding advantage over any other industry participant and that the Department should consider revising the definition of the term affiliate for this auction process to include those groups that share spectrum resources.

Finally, Rogers asserts that they have more spectrum because they serve more subscribers.<sup>22</sup>

*“Lastly, it should be noted that there is an important reason why incumbent operators possess more spectrum: they serve many more customers. Obviously, the more customers that an operator serves, the more traffic that must be carried on its network and the more spectrum capacity it will require to serve that traffic.”*

We note that Rogers has as of late been experiencing high churn. Rogers themselves note in their recent explanations to shareholders that they are not just losing subscribers to new entrants but also to Bell and TELUS. Working with Rogers rationale above and coupling that with the artificially high rates they continue to charge for their premium service relative to the rest of the world, it shouldn't be long before they do not need all of that spectrum. Therefore restricting Rogers from both the 700 MHz and 2500 MHz auctions will not result in that much of a hardship for the company.

Seriously, Rogers already has vast reserves of sub 1 GHz and 2500 MHz spectrum. Why would the Department even consider letting the fox into the henhouse? All Rogers wants to do is be certain that no new entrants can gain a long term foothold in the market. Rogers needs to learn how to partner with new entrants for mutually beneficial reasons. Rogers fails to prove any real need for 700MHz spectrum based on the arguments they present nor do they need anymore 2500 MHz spectrum. Rogers has historically demonstrated they cannot deploy the spectrum holdings they currently have. Rogers should be excluded from both 700 MHz and 2500 MHz auctions until near full deployment in bands 850 MHz, AWS, 2500 MHz and 3500 MHz is demonstrated and to the benefit of R&R communities.

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<sup>21</sup> Rogers submission Pg. 22, Paragraph 56

<sup>22</sup> Rogers submission Pg. 23, Paragraph 58

## The Big 3 – TELUS

TELUS pretty much makes similar arguments to the rest of the Big 3 except they claim they were somehow deprived of an “in” on the 2500 MHz Inukshuk spectrum. TELUS shares 850 MHz spectrum with Bell on a national network. For the same reasons cited above, TELUS should therefore be considered an affiliate of Bell and thereby restricted from access to the 700 MHz spectrum auction. TELUS uses relatively the same arguments as the rest of the Big 3 for why they need 700 MHz spectrum.

## New Entrants

All new entrants agree that additional spectrum is required at this time.

All new entrants agree that actions taken by the department to promote more competition in the market in 2007 have precipitated a noticeably increased level of competition in the market.

Most new entrants agree with aligning the spectrum with the United States band plan.

Public Safety – where new entrants responded, most agree that Public Safety should work with a commercial carrier to provide for their needs.

Virtually all new entrants view Bell and TELUS as one entity as they share both network and spectrum resources. That point of view is supported also by Rogers.

Most new entrants propose that none of the Big 3 be included in the 700 MHz auction with Shaw and Quebecor suggesting that they be capped if allowed to participate. After considering all parties submissions, Niagara hereby suggests that if Bell and TELUS are to be considered as one bidder than no more than 20% of the available spectrum should be made available to 2 of the Big 3 bidders. Our prime recommendation would be that none of the big 3 be allowed to bid on 700 MHz spectrum as none of them have provided any valid reason for requiring the spectrum in light of the fact that they all have sizeable sub 1GHz spectrum reserves available to them on a national basis.

Niagara Networks would like to thank the Department for this opportunity to participate in this very exciting consultation process.