April 19, 2011

VIA E-MAIL: Spectrum.Engineering@ic.gc.ca

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

Dear Sirs/Mesdames:


1. Bragg Communications Inc., operating as EastLink (“EastLink”), appreciates the opportunity to provide its comments in relation to the issues raised by Industry Canada (the “Department”) in the above-noted Gazette Notice (the “Consultation Paper”).

2. EastLink provides cable, High Speed Internet and wireline telephony services to residential, business and public sector customers across Canada. EastLink was the first cable company in Canada to enter the local telephony market in 1999, bringing competition to many markets for the first time. There is every reason to expect that EastLink will be as successful competing in the mobile wireless market as we have been in the local telephony market. In addition, EastLink was the first communications company in North America to combine cable, Internet and telephone service in a bundle, providing greater value to consumers. EastLink’s ability to offer service bundles will offer an attractive option for wireless consumers as well, further improving the likelihood that EastLink will be able to rapidly build a strong base of wireless subscribers.
3. However, EastLink’s success in providing consumers with competitive wireless services is subject to spectrum access. The combination of new subscribers, increased mobile data usage by wireless consumers, and EastLink’s limited AWS spectrum holdings will lead quickly to a situation where EastLink needs access to additional high-frequency spectrum, which is best suited for boosting capacity in high-traffic areas. This spectrum will be critical in providing the capacity EastLink needs to offer consumers the mobile data services they are increasingly demanding.

**The Importance of the 2500 MHz Spectrum**

4. EastLink pointed to its strong record of serving rural areas in its comments on the 700 MHz auction, and noted that the low-frequency 700 MHz band was well suited to providing rural areas with mobile wireless services due to its strong propagation characteristics. EastLink stands by our earlier comments and notes that, just as the 700 MHz was ideal for EastLink’s rural deployment, the 2500 MHz band is ideal for boosting capacity in high-traffic areas.

5. To increase network capacity, carriers must build additional sites or acquire additional spectrum. With the significant municipal challenges associated with building new wireless towers in urban areas, acquiring additional spectrum is the only practical solution. The 2500 MHz and the AWS bands have similar propagation characteristics and can be used in a complementary fashion to provide the most spectrally efficient strategy for boosting capacity in high-traffic areas.

6. EastLink will soon need this additional capacity. As popularity grows of tablet devices like the iPad – with its improved screen size and resolution compared to traditional handhelds – the wireless industry is expecting growth of mobile data to exceed the explosive growth being experienced with wireline broadband services. Bandwidth intensive video applications will become increasingly popular along with the popularity of these devices. Capacity will be critical to EastLink’s ability to compete in the wireless market as consumers increasingly demand access to such data-heavy services. Incumbent carriers hold substantially more high-frequency spectrum than EastLink, which has limited holdings in the comparable AWS band. The 2500 MHz spectrum is the
last new 3GPP spectrum standardized for LTE use that will be made available for some time, so EastLink must have an opportunity to acquire this high-frequency spectrum now.

7. EastLink believes that the 2500 MHz auction should be structured to ensure that as many carriers as possible, aside from Inukshuk, have access to the spectrum, which will help ensure consumer choice and the long-term ability for new entrants to compete in the wireless market.

**Inukshuk should not be permitted to bid in the 2500 MHz auction**

8. The simple fact is that much of the 2500 MHz spectrum is concentrated in the hands of one provider, Inukshuk; a joint venture formed by Bell Canada and Rogers Communications in 2005.

9. Inukshuk owns 33% of available 2500 MHz spectrum in Region A, and a staggering 67% of spectrum in Region B, where it holds 120 MHz of spectrum. In the US, Clearwire owns also owns 120 MHz of comparable spectrum, covering 100 major metropolitan areas; holdings that Inukshuk has said give Clearwire, “the ability to *de facto* control the extent to which services are implemented in conformity with the US band plan.” In region B, Inukshuk has that same control. Worse, in Region B there is only 60 MHz of spectrum left for every other carrier and new entrant in Canada. The picture is slightly better in Region A, where there is 120 MHz available for all other carriers to acquire, but Inukshuk will remain a strong market presence regardless of the 2500 MHz spectrum auction outcome.

10. As a result, EastLink submits that to ensure that consumers have service options it is critical that all of Inukshuk, Bell, and Rogers (referred to herein as "Inukshuk"), be banned from participation in the 2500 MHz spectrum auction. Preventing Inukshuk from using its vast financial resources to accumulate even more spectrum will allow other carriers to offer services in Regions A and B, and will help ensure that new entrants have access to the 2500 MHz spectrum needed for its capacity characteristics as described above.
11. EastLink submits that Inukshuk’s spectrum holdings in Region B are so unbalanced that it would be appropriate for the Department to consider requiring Inukshuk to allow other carriers access to Inukshuk’s spectrum in Region B.

12. As noted above, Inukshuk holds 120 MHz of 180 MHz of available 2500 MHz spectrum in Region B. Even if one carrier were able to purchase the remaining 60 MHz, which is highly improbable due to the demand for that spectrum, Inukshuk would still have twice as much spectrum and thus would be able to carry twice the traffic over the same site infrastructure. More realistically, three carriers will each purchase 20 MHz of this remaining spectrum in Region B, meaning that Inukshuk could carry six times more traffic than its competitors with the same number of sites and a similar investment.

13. This capacity discrepancy could provide Inukshuk with an ability to offer improved wireless data speeds. However, history indicates that Inukshuk would not build the necessary infrastructure to offer such speeds until competition has forced it to do so. As it is now, without competition, Inukshuk has built out its network only as far as necessary to ensure that it would not lose its 2500 MHz license. Inukshuk has released only sparse information on how to sign-up for service and its website simply directs consumers to Bell and Rogers’ existing websites; Rogers’ website in particular has no additional information. Clearly, in the absence of competition, Inukshuk has not used the spectrum to launch or promote advanced wireless services. The potential speed benefits for consumers will be lost if the Department does not allow for competition in Region B above and beyond what can be accomplished under the 2500 MHz spectrum auction.

14. EastLink considers that a form of mandated shared-network access at a cost clearly defined by the Department could achieve the desired outcome but does not offer any formal suggestions in this submission. Instead, EastLink urges the Department to take the reality of Inukshuk’s hold on the market under consideration and to put in place reasonable measures to ensure sustainable competition is possible. EastLink submits that a minimum first step would be for the Department to deny Inukshuk the ability to participate in the 2500 MHz spectrum auction.

15. Given EastLink’s submission that Inukshuk should not be permitted to participate in this auction, EastLink assumes through the rest of this submission that Inukshuk will
not be participating. EastLink also notes that, despite Telus’ exclusion from Inuksuk, Telus should also be limited in its participation in the 2500 MHz auction. It is well known that Telus and Bell have extensive network sharing agreements across many spectrum bands, so that together they have formed a sort of oligopoly. While Telus may currently be prevented from using Inukshuk’s spectrum, there are no guarantees that the current situation will continue or that Telus would not allow Bell to share its 2500 MHz spectrum in high-traffic areas.

16. As a result, just as Inukshuk should be prevented from participating in the 2500 MHz auction, Telus should also either be prevented from participating, or should have its licences subject to restrictions such that Telus would not be able to allow Bell access to its 2500 MHz spectrum.

**Promoting Competition**

17. EastLink has noted in previous submissions on the 700 MHz auction why new entrant-access to spectrum is critical in ensuring that the Department’s goals of lower prices, more consumer options, and more innovative services in the wireless market are met. Specifically, EastLink noted that only when new entrants have been able to enter a market have carriers implemented more competitive plans and only in those same areas have discount brands forced larger, dominant carriers to launch flanker brands of their own, offering consumers a range of lower-price options. Many of these competitive advances have not made their way to Atlantic Canada yet but EastLink expects that will change as EastLink rolls out its services. EastLink has also previously noted that these gains in consumer choice and pricing can only be sustained if new entrants are given fair access to the very limited spectrum resources. EastLink’s more detailed comments on the importance on fair access to spectrum in ensuring competition can be found in our reply comments on the 700 MHz auction, here: [http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SMSE-018-10-Eastlink.pdf/$FILE/SMSE-018-10-Eastlink.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SMSE-018-10-Eastlink.pdf/$FILE/SMSE-018-10-Eastlink.pdf)

18. All the same competition principles described in the above referenced document apply to this 2500 MHz spectrum auction, so EastLink will not reiterate them in this submission.
Set-Asides

19. For this 2500 MHz spectrum, in the event that Telus is able to participate and to ensure fair access to the remaining spectrum, EastLink proposes that the Department establish a set-aside mechanism to ensure that at least two new entrants can acquire spectrum in each market. This set-aside proposal would still expect under all circumstances that Inukshuk would be prevented from participating. EastLink offers the following thoughts with respect to how such a set-aside should be set up.

Spectrum allocation proposal for BRS band in Region A

Region A

20. In Region A, Inukshuk holds 33% of the spectrum (60 MHz of a total 180 MHz). EastLink proposes that three blocks of 20 MHz spectrum and the 20 MHz TDD spectrum be set aside for carriers who do not currently own more than 10% of the national market share (called “new entrants” herein). The remaining two blocks of 20 MHz spectrum would be made available for any carrier, other than Inukshuk, to bid on. This arrangement in Region A would provide enough blocks of spectrum under the set-aside that at least two new entrants could enter the market in any particular region, without unfairly disadvantaging larger existing carriers from acquiring the spectrum they may desire for their future plans. For example, LTE can be deployed with its most desirable characteristics on two 20MHz blocks of spectrum, including superior speeds. Under
EastLink’s proposed set-aside, an existing carrier would be able to acquire two 20 MHz blocks of spectrum, which would allow it to deploy LTE with the technology’s most desirable characteristics. Importantly, this arrangement would also allow at least two new entrants to also acquire 40 MHz by buying two blocks of 20 MHz spectrum or by purchasing the 20 MHz TDD spectrum in conjunction with one block of 20 MHz spectrum in the FDD band.

Spectrum allocation proposal for BRS band in Region B

![Diagram of spectrum allocation]

Inukshuk holds 120 MHz of 180 MHz = 67%
Open to all bidders is 20 MHz of 180 MHz = 11%
Set-aside for new entrants is 40 MHz of 180 MHz = 22%

Region B

21. In this region, Inukshuk already holds 67% of the spectrum (120 MHz of a total 180 MHz). While there is less spectrum available under the auction in Region B, EastLink believes a set-aside similar to that of Region A would work. Specifically, two blocks of 20 MHz spectrum should be set aside for carriers that do not already hold more than 10% of the national market share and the remaining one block of 20 MHz spectrum should be available to all bidders, other than Inukshuk. This proposal would allow for the two new entrants that EastLink believes are necessary to encourage competition to acquire spectrum in Region B but would not unfairly prevent larger existing carriers from acquiring the spectrum they may desire for their future plans. Available spectrum is limited in Region B but EastLink submits that should not keep the Department from establishing a set-aside for new entrants. Consumers in this region already face a limited number of options due to Inukshuk’s substantial spectrum holdings. The auction should not further limit consumer choice by allowing large
incumbent carriers to acquire all remaining available spectrum.

22. EastLink also proposes that the Department apply conditions of license to set-aside spectrum, requiring that the spectrum be transferred only to other new entrants for a period of five years from the auction date. This would be consistent with the Department’s approach for the AWS auction.

23. EastLink does not support the use of a spectrum cap in the 2500 MHz auction. Inukshuk’s substantial holdings have left little spectrum available for purchase under this auction. As a result, a spectrum cap would be an ineffective method of ensuring that two new entrants have access to the spectrum. For example, in Region B, limiting holdings to no more than two blocks of 20MHz spectrum would mean that only one new entrant would have the opportunity to acquire spectrum, as it is unlikely that any new entrant could outbid large incumbent carriers participating in the auction. Set-asides would be much more effective in ensuring that new entrants and incumbent carriers alike have access to the spectrum, while avoiding anti-competitive hoarding by incumbents.

**Block Sizes**

24. As noted above, the 2500 MHz spectrum’s low propagation but strong capacity characteristics make it best suited to providing additional capacity for high-traffic areas. The 2500 MHz band’s substantial capacity advantages would be wasted for Canadian consumers if blocks as small as 10 MHz were to be used. EastLink proposes that blocks of at least 20 MHz be used to auction the FDD portion of the spectrum. At 20 MHz Canadian consumers would be able to enjoy the benefits of the 2500 MHz spectrum. At the same time, the block sizes would be small enough to allow for a maximum number of winning bidders under the auction, which will allow for the most competition and consumer choice.

25. In the TDD band, EastLink proposes that the 20 MHz of available spectrum be auctioned in each market as a single 20 MHz block. While auctioning the spectrum as a single block would limit the number of companies operating in the TDD band, to do otherwise is impractical. The TDD band is subject to substantial interference such that carriers would require guard bands of at least 2 MHz to provide quality service. Should
the Department break the 20 MHz into two blocks, it would create a situation where one carrier would have a 9 MHz block, while the other would operate with just 8 MHz after establishing its guard bands. This scenario wastes 2 MHz of spectrum and limits the capacity of both blocks because, as noted above, 5 MHz blocks would not be sufficient to provide competitive services. As a result, it makes sense to allow one carrier to purchase all 20 MHz in available TDD spectrum under the 2500 MHz auction.

**Tier Sizes**

26. EastLink proposes that the 2500 MHz spectrum be auctioned using Tier 3 areas. It does not make sense to consider larger tier sizes because of the propagation characteristics of the 2500 MHz spectrum. The Department recognized this in the conversion of MCS and MDS authorizations to BRS spectrum licences, which were converted based on Tier 3 sizes, except for Inukshuk’s licence and SSI’s MCS licence, which used Tier 4 sizes.

27. EastLink also submits that uniform tier size should be enforced across all spectrum licences. This will simplify the auction process and will result in a more uniform average tier cost covering the same geographical area.

**Miscellaneous Issues**

**Foreign Ownership**

28. EastLink’s only submission in relation to foreign ownership is that whether or not the Department decides to liberalize foreign ownership laws, a decision on that issue should not affect the Department’s decision to employ a set-aside.

**Pre-qualification of Bidders**

29. EastLink submits that companies bidding in the auction should be pre-qualified and their eligibility to both participate in the auction and operate as a wireless service provider in Canada should be determined prior to the auction. This will ensure that the
industry does not face any further uncertainty of the type that is now being experienced as a result of the uncertain legal status of Globalive Communications.

**Tower Sharing and Roaming**

30. EastLink has noted in our submissions on the 700 MHz auction that our primary concerns regarding tower sharing are that the agreements be long enough to provide licenses with some certainty of long-term access, that the rates not be based solely on commercial negotiations that can be manipulated by incumbents, that seamless roaming should be mandated and that liability provisions should be commercially reasonably. EastLink looks forward to the opportunity to address issues regarding tower sharing and roaming in more detail in the Department's planned consultation.

**Conclusion**

31. The 2500 MHz spectrum is well suited to providing needed capacity in high-traffic areas and is the last opportunity new entrants will have for a while to acquire that capacity, which is critical to ensuring our long-term ability to offer competitive service in those areas. The spectrum is largely in the hands of one provider, Inukshuk, and that reality will not change regardless of the Department’s decisions regarding the 2500 MHz auction. EastLink believes its proposals herein are necessary to provide some balance to the market, to allow as much consumer choice as possible by providing new entrants with access to the spectrum, and to ensure that wireless customers can benefit from the 2500 MHz spectrum’s capacity characteristics.

Sincerely,

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