

## **Part 5: Bell Canada's Response to Specific Questions Raised in the Department's Consultation Paper**

In the following section, Bell Canada provides its comments regarding the specific questions raised in the Department's Consultation Paper. For further clarity, the specific issue or question being addressed is encapsulated in these comments preceding Bell Canada's response.

### **Addressing the Potential for New Entry**

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

Bell Canada submits that, in consideration of the present circumstances, there is absolutely no need or rational basis for any measures intended to enable market entry in the AWS spectrum auction. As demonstrated throughout these comments, the circumstances existing in the Canadian wireless market simply do not warrant the interventionist measures raised for consideration in the Consultation Paper. Bell Canada submits that there is no evidence of the failure of competitive market forces that would justify such intervention. To the contrary, as discussed below, the available evidence suggests that the Canadian wireless industry is a competitively functioning market that does not require fixing.

Bell Canada further submits that the notion of intervening in the competitive wireless sector, runs counter to the trend to rely on market forces as required by the Federal Government's recent Telecommunications Policy Direction to the CRTC. Bell Canada submits that it is instructive, for the purposes of this Consultation, that the Policy Direction requires reliance on market forces to the maximum extent feasible. As the Department is aware, spectrum auctions were introduced specifically for those cases where reliance on market forces, to select licensees, was deemed to be in the public

interest.<sup>1</sup> In this regard, Department's Framework for Spectrum Auctions in Canada notes that:

A spectrum auction is a market-based tool that allows the Government to identify those entities who value the spectrum most and who will therefore be assumed to put that spectrum to its most efficient use.<sup>2</sup>

Given that spectrum auctions are market-based, Bell Canada submits that the intervention contemplated in the Consultation Paper, e.g. set-asides, caps, mandated roaming and tower sharing, significantly conflicts with the intent and spirit of the Government's Telecommunications Policy Direction. Such intervention would, in Bell Canada's view, perpetuate an antiquated command and control regime and would constitute unwarranted micromanagement of the competitive wireless sector. Moreover, even if there was some substantiated basis for interference with market forces in the competitive wireless sector, the degree of intervention contemplated in the Consultation Paper is significantly out-of-step with the Policy Direction's requirement to interfere to the minimum extent with market forces, when such interference is warranted. Bell Canada's comments conclusively demonstrate that no factual basis for interference exists in the wireless sector. Market forces, in short, will ensure that those willing and able to put the spectrum to its best use will bid for and acquire spectrum.

Clearly, Industry Canada understands that interference in the marketplace, as contemplated in the Consultation Paper can result in "unviable entry". In this regard, the Consultation Paper is out of sync with the Policy Direction's requirement that economic regulation, when required, should neither deter efficient entry nor promote inefficient entry.

Mindful of the Policy Direction's intent, the following analysis demonstrates that there is no need for measures intended to enable market entry in the AWS spectrum auction based on a review of the relevant factors noted in the Consultation Paper, i.e. current market structure, market rivalry, pricing, expressed demand for the spectrum in question and the potential for existing wireless service providers to preclude market entry by acquiring all the available spectrum.

---

<sup>1</sup> Industry Canada, *Framework for Spectrum Auctions in Canada*, October 2001 (Issue 2), page 1.

<sup>2</sup> *Ibid.*, page 1.

### ***Current Market Structure***

The Canadian wireless market in 2007 is characterized by three well-established facilities-based wireless service providers competing throughout Canada. In addition to the three national facilities-based service providers there are two large regional wireless service providers, two MVNOs operating nationally as well as several wireless resale entities, many of whom have substantial national or regional brand recognition, e.g. President's Choice, Primus, Videotron. This healthy number of competitive alternatives is available to Canadians despite the fact that the scale of the Canadian wireless market is small by international comparison.

As noted in *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range* by Guofu Tan and David Krause, filed with this submission:

The number of firms that can efficiently operate in the market will depend on the relationship between minimum efficient scale of production (MES) and total demand.<sup>3</sup> If in order to achieve the minimum cost of production requires producing a level of output that is a large fraction of total demand, and the product is not readily exportable, then only a small number of firms will be able to reach the lowest cost level of production. This explains why Canada tends to have more concentrated industries relative to the United States, because in general, the level of output required to reach MES in Canada will be a larger fraction of total demand than in the U.S.<sup>4</sup>

Based on the above Bell Canada submits that the current Canadian wireless market structure does not suggest that intervention is warranted.

### ***Market Rivalry***

Bell Canada's comments demonstrate that industry and expert competition observers have found the market to be rivalrous and that none of the wireless service providers are dominant or have significant market power. The CRTC forbore from regulating wireless services, as noted by Tan and Krause, in 1994 when there were only two cellular providers in each area of Canada. The CRTC has reaffirmed this view in numerous

---

<sup>3</sup> Minimum Efficient Scale is the level of output where average cost is minimized and economies of scale are exhausted.

<sup>4</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 8.

decisions, in the intervening years, including most recently as 2006, when CRTC stated its view in Decision 2006-33 that:

... In *Application by Microcell regarding alleged contraventions of section 27(2) of the Telecommunications Act by Rogers Wireless and Bell Mobility*, Telecom Decision CRTC 2003-26, 28 April 2003, the Commission considered that the wireless market was characterized by rivalrous behaviour and was robustly competitive. The Commission considers that this assessment continues to be valid with respect to the current state of competition in the wireless market. In this regard, the Commission notes that in its *Report to the Governor in Council: Status of Competition in Canadian Telecommunications Markets, October 2005*, the Commission reported that the wireless market continued to display strong growth and to be competitive.<sup>5</sup>

The comments of the Competition Bureau in its assessment of the Rogers-Microcell merger stated:

[P]ost-merger, there will be three mobile wireless operators who are vigorous and effective competitors. Rogers does not possess sufficient market power to impose and sustain a significant and non-transitory price increase above levels that would otherwise exist in absence of the merger because rivals would likely respond in an effort to enhance their customer bases. The Bureau concluded that innovative product and service offerings will continue to be available to consumers at competitive prices. As already noted, both Bell and TELUS have recently engaged in aggressive marketing promotions targeted at current Rogers and Microcell subscribers.<sup>6</sup>

Industry regulators have therefore found the wireless market to be rivalrous. Their findings, in this regard, are supported by competition experts.

CRA International found for example, in their *Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada*, filed with this submission that:

Competitive rivalry is further evidenced in declining average revenue per minute over time, substantial increases in the average minutes of use and high levels of customer satisfaction. The national providers have responded to the entry of mobile virtual network operators with

---

<sup>5</sup> CRTC Telecom Decision 2006-33, *Part VII application by Superior Wireless Inc. against TbayTel alleging unjust discrimination*, paragraph 29.

<sup>6</sup> Competition Bureau Canada, *Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc.*, available electronically at <http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=257&lg=e>.

introductions of their own lower-priced or speciality brands to target particular customer segments. As well, providers have launched a number of plan options with large buckets of available minutes of use.<sup>7</sup>

Tan and Krause, for their part, observe that:

The Canadian wireless sector is well established and the state of competition is such that government intervention through the use of entry-assisting policies is not required.<sup>8</sup>

Similarly, CRA International, is also in accord with the views of industry regulators, that the wireless market continues to competitive, in its findings that:

In summary, using the well-established analytical framework embodied in Canadian competition law, we find that no single wireless firm in Canada has significant market power. As well, we find that cooperative arrangements among the existing wireless providers to exercise significant market power jointly are highly unlikely. Thus, given the issues being examined in Industry Canada's consultation process, we find no clear evidence for concerns regarding the state of competition in the Canadian wireless market.<sup>9</sup>

Bell Canada notes that while Industry Canada is examining the state of competition in the wireless market for different reasons, i.e. to determine if entry - assisting intervention at the time of licensing is required, that does not mean that the findings and the analytical framework employed by the CRTC and the Competition Bureau are not relevant. In fact the analytical process used by the Competition Bureau is particularly helpful in examining the state of competition in the wireless market today. As CRA International notes, these very same analytical processes are used throughout the world to evaluate competitive conditions.<sup>10</sup>

---

<sup>7</sup> CRA International, *An Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada*, page v.

<sup>8</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 6.

<sup>9</sup> CRA International, *An Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada*, page v.

<sup>10</sup> *Ibid.*, page 1.

## **Pricing**

Given the complexities, and resultant difficulties, of producing valid international wireless pricing comparisons, Revenue Per Minute (RPM) is frequently used as comparator of international pricing. Canadian RPM, which has been steadily declining since the introduction of wireless services in 1985, is currently the second lowest in the world. Not only are Canada's wireless prices relatively low, when compared with other countries, but in addition Canadian handset subsidies, a substantial cost saving to customers, are among the highest in the world.<sup>11</sup>

Concerning pricing behaviour CRA International notes that:

Average revenue per minute (ARPM) in Canada has declined to a substantial degree over the last five years. Figure 6 shows ARPM for voice service by provider over 2001 to 2006. The figure shows a clear decline during this time period for all providers, consistent with competition among providers.<sup>12</sup>

CRA International further notes that:

Price and non-price competition are considered . . . respectively. We find ample evidence of both forms of competition, arguing against the existence of significant market power: price trends are such that substantial gains have been transferred to consumers over time . . .<sup>13</sup>

Bell Canada submits therefore that, on the basis of pricing, there is no substantive reason to conclude that intervention is warranted.

## **Expressed Demand for the Spectrum**

Regarding the expressed demand for the spectrum in question, the Department's Consultation Paper suggests that it has received expression of interests in the AWS spectrum. In this regard, it is important to recognize that the requirement for the AWS spectrum was not just realized or decided with the release of the Consultation Paper. Indeed, as the Consultation Paper notes:

---

<sup>11</sup> Dvai Ghose, Challenging the Myths about Canadian Wireless, CWTA AWS Forum Presentation, April 2007.

<sup>12</sup> CRA International, *An Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada*, page 27.

<sup>13</sup> CRA International, *An Assessment of Market Power in the Provision of Wireless Telecommunications Services in Canada*, page 5.

The industry and the Department have been developing plans to identify spectrum for AWS so as to keep the Canadian wireless infrastructure in step with developments in North America and Europe.<sup>14</sup>

Planning activities, by both the current licensees and Industry Canada, towards allocating and assigning the AWS spectrum began in 1992 when the AWS spectrum bands were initially identified as candidate bands for the emergence of third generation wireless. Third generation, or 3G, has been defined as primarily a high-mobility service with a fixed service component. In the International Telecommunications Union (ITU) Radio Regulations the band is referred to as International Mobile Telecommunications-2000 or IMT-2000. Today, both the 3G and the IMT-2000 designations have been subsumed, in North America, under the AWS allocation.

Over a decade later, in 2003, international and domestic spectrum planning activities had evolved to the point that Industry Canada initiated a *Consultation on Spectrum for Advanced Wireless Services and Review of the Mobile Spectrum Cap Policy*, Notice No. DGTP-007-03, October 2003 (the 2003 AWS Consultation). The 2003 Consultation proposed the changes to the *Canadian Table of Frequency Allocations*, which would eventually result in the allocation of specific spectrum bands to the AWS service in Canada.

In its comments in response to the 2003 AWS Consultation Bell Canada noted that the new advanced wireless services, such as mobile data, high-speed Internet access and multimedia, are bandwidth intensive. Bell Canada further noted that by 2008 it would likely require additional spectrum to both provide advanced wireless services as well as to continue to expand and improve its existing network. In summary, it is accurate to say that since 1992 current Canadian wireless licensees have been working with the Department toward the assignment of Canada's AWS spectrum. Bell Canada submits that the only thing required now, to complete the process, is an unrestrained auction where any eligible party is free to demonstrate the value it places on this finite resource.

---

<sup>14</sup> Industry Canada, *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, Notice No. DGTP-002-07, February 2007, page 1.

***Potential for Existing Wireless Service Providers to Preclude Entry***

Concerning the matter of the potential for existing wireless service providers to preclude market entry by acquiring all of the spectrum available, Bell Canada submits that such market foreclosure is simply not feasible for a number of reasons. It would be prohibitively expensive for any entity to pursue a strategy of purchasing spectrum just to keep it out of the hands of another entity since such a strategy would effectively strand the associated investment without the possibility of a financial return. Further, the fact that for such a strategy to succeed would require that all upcoming spectrum (e.g. the AWS upper band, the 2.5 GHz band soon to be consulted on and the upcoming 700 MHz spectrum), be acquired and would only add to the stranded investment. Bell Canada submits that today's stricter adherence to corporate governance standards and duties to shareholders would not condone such a strategy.

Bell Canada also believes that an unrestrained spectrum auction would most efficiently determine which parties should acquire access to this national resource. Indeed this was the very reason why Canada adopted spectrum auctions as an assignment method in the late 1990's. Industry Canada's summation of the Department's rationale for introducing spectrum auctions, as expressed in its *Consultation on Issues Related to Spectrum Auctions*, August 1997, is instructive when it states that:

...Auctions substitute real world investors and consumers for public servants in the determination of who has the better business plan, the most innovative ideas, the most highly beneficial services, the right technology and the best management team.<sup>15</sup>

The Department again recognized the benefits of competitive spectrum auctions in its *Framework for Spectrum Auctions in Canada*, October 2001, wherein it notes:

In February 1996, Industry Canada announced its intention to introduce the use of spectrum auctions where reliance on market forces to select licensees was deemed to be in the public interest. A spectrum auction is a market-based tool that allows the Government to identify those entities who value the spectrum the most and who will therefore be assumed to put that spectrum to its most efficient use.<sup>16</sup>

---

<sup>15</sup> Industry Canada, *Consultation on Issues Related to Spectrum Auctions*, August 1997.

<sup>16</sup> Industry Canada, *Framework for Spectrum Auctions in Canada*, Issue 2, October 2001, page 1.

Regarding the concern that existing wireless carriers' could preclude entry by acquiring all the spectrum available at auction, Tan and Krause note that:

. . . the benefits of outbidding an entrant are dubious especially if outbidding puts one firm at a significant cost disadvantage relative to other existing firms in the market. No one firm can afford to significantly increase its cost relative to the firms operating in the market and still remain competitive. A firm 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. Using spectrum in an inefficient manner relative to other firms will put a firm at a significant competitive disadvantage.<sup>17</sup>

The benefits of assigning spectrum through auctions are widely recognized today. Indeed as Cramton (2002) notes:

The primary advantage of an auction is its tendency to assign the spectrum to those best able to use it. This is accomplished by competition among license applicants. Those companies with the highest value for the spectrum likely are willing to bid higher than the others, and hence tend to win the licenses. . . . A second important advantage of auctions is that the competition is not wasteful. The competition leads to auction revenues, which can be used to offset distortionary taxation. Finally, an auction is a transparent means of assigning licenses. All parties can see who won the auction and why.<sup>18</sup>

Bell Canada submits therefore that Industry Canada's decision to adopt market-based spectrum assignment processes, such as unrestrained spectrum auctions, will determine those parties, either existing service providers or new entrants, who value the spectrum most. Bell Canada believes that Canada should continue to rely on real world investors and consumers, as opposed to bureaucratic judgment, for determining who values the spectrum the most and hence who will put the spectrum to its most efficient and best use. Bell Canada submits that such an approach clearly is in the public interest. Finally, Bell Canada notes that should the Department elect to adopt any of the entry facilitating measures raised for discussion in the Consultation Paper, Bell Canada reserves its right to make a further submission regarding any such measures.

---

<sup>17</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 17.

<sup>18</sup> Cramton, P. (2002), "Spectrum Auctions," *Handbook of Telecommunications Economics*, Vol. 2, Cave, Majumdar and Vogelsang, eds., New York: Elsevier, 605-639, page 608.

## Spectrum Set-aside

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

Bell Canada does not believe that spectrum should be set-aside for new entrants as part of the AWS spectrum auction. Bell Canada submits that countries that have used spectrum auction set-asides in the past, notably the U.S. and the U.K., have encountered serious post-auction difficulties resulting from the application of set asides. As a consequence, the FCC, in its 2006 AWS auction, did not apply a spectrum set aside. Similarly the U.K.'s Ofcom, in its current AWS equivalent auction consultation, is not proposing the use of an auction set aside.

In the case of the FCC, experience with the 1996 PCS C-block auction set-aside is perhaps the most notable example of unintended negative outcomes resulting from the application of good intentioned, but flawed, public policy. Applying Congressionally imposed FCC "designated entity" rules, the C-block was set aside for small bidders. In their *Adverse Effects of Spectrum Set Asides*, Crandall and Ingraham note that:

The end result of the C-block auction was that a number of the designated entities with winning bids could finance neither these purchases nor the subsequent costs of building out their networks. They subsequently declared bankruptcy and tied up valuable spectrum without using it while bankruptcy litigation continued for nearly a decade. As a result, consumers were harmed by the regulators' inability to deliver valuable spectrum to the wireless carriers that were best suited to deploy that spectrum.<sup>19</sup>

As Crandall and Ingraham note, the set-aside program simply did not work in the manner that the FCC had originally intended. Moreover, while the spectrum eventually ended up in the hands of the entities that valued them the most, i.e. large wireless companies, they note that:

---

<sup>19</sup> Robert W. Crandall and Allan T. Ingraham, *The Adverse Economic Effects of Spectrum Set-Asides*, May 24, 2007, page 4.

The overall effect of the set-aside program, however, was to increase greatly the transaction costs of wireless service providers and to delay the deployment of valuable spectrum assets, which increased the cost of wireless services and harmed the quality of those services.<sup>20</sup>

Ultimately, Crandall and Ingraham note, the FCC's efforts to facilitate the entry of uneconomic designated entities were unsuccessful. The case of NextWave, is instructive, as the bidder that won the largest share of C-block licenses and which subsequently declared bankruptcy in 1998. NextWave's bankruptcy ultimately tied up a large amount of valuable spectrum in litigation for 6 years and resulted in substantial consumer harm, due to the FCC's failure to assign, in a timely manner, the spectrum to the firms that valued it the most.

For its part, in its 2003 *Report and Order In the Matter of Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, concerning its AWS auction, the FCC specifically noted that:

We ... will not set aside spectrum for designated entities or other categories of bidders. Our objectives of ensuring both efficient use of spectrum and diversity of licensees can best be achieved by adopting a variety of licence areas and spectrum block sizes, and ensuring the ability of licensees to partition and disaggregate their licences and fully participate in the secondary spectrum markets. . . . As we stated in the AWS Service Rules NPRM, "opening these bands to as wide a range of applicants as possible would encourage entrepreneurial efforts to develop new technologies and services, while helping to ensure efficient use of this spectrum".<sup>21</sup>

Similarly, the U.K., which employed set-asides in its 2000 UMTS auction also failed to achieve the intended outcome. Instead, as Crandall and Ingraham note:

. . . the United Kingdom's set-aside to a new entrant simply subsidized the price of spectrum for a large international firm [Hutchinson] that arguably did not need a subsidy.<sup>22</sup>

---

<sup>20</sup> Ibid., page 5.

<sup>21</sup> FCC, *In the Matter of Service Rules for Advanced Wireless Services, Report and Order*, Released November 25, 2003, paragraph 68.

<sup>22</sup> Robert W. Crandall and Allan T. Ingraham, *The Adverse Economic Effects of Spectrum Set-Asides*, May 24, 2007, page 13.

As a result, the authors conclude that the U.K.'s set aside policy led to an inefficient allocation of spectrum with the inefficiency cost to the U.K., i.e. the subsidy to Hutchinson, estimated to be in the range of 450 million pounds or almost \$1 billion dollars.

Bell Canada believes that it is also instructive that Ofcom, like the U.S., is not proposing a set-aside in its current auction consultation which includes its equivalent to North America's AWS spectrum. The U.K.'s position is in accord with Ofcom's view stated in its *Spectrum Framework Review: Implementation Plan – Interim Statement*, July 2005, in which it states that since auctions award licences to those prepared to pay the most for them, they are therefore likely to lead to the spectrum being assigned to those that value it the most.

Bell Canada also submits that, having adopted auctions as a competitive licensing alternative, for those cases where demand for the spectrum exceeds supply, good spectrum management argues against the adoption of a spectrum set-aside. Crandall and Ingraham note for example that:

. . . the purpose of a spectrum auction is to allocate spectrum to the most efficient carrier—that is, the carrier that can use the spectrum to provide the service most valued by the end user.<sup>23</sup>

Applying a spectrum set-aside varies from the market-based approach inherent in spectrum auctions and begins to reinsert bureaucratic judgement into the equation. As stated above, this would contradict the principles enshrined in the Policy Direction. Moreover, as Tan and Krause note concerning the application of set-asides, experience in the U.S. supports the view that:

This [use of set-asides] would allow new entrants to bid without having to compete against the current wireless providers, it does not guarantee the participation of a new firm in the wireless market.<sup>24</sup>

As noted above, a fundamental principle of the spectrum auction assignment method is the belief that such entities will therefore put the scarce spectrum resource to its most

---

<sup>23</sup> Ibid., page 3.

<sup>24</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 4.

efficient and productive use for society. Bell Canada submits that this result can only be achieved through an unrestrained, open and truly transparent spectrum auction where the entire spectrum available is open for bid to all eligible entities on the same basis. To do otherwise both circumvents the primary purpose of spectrum auctions (a lesson learned at great expense by both the U.S. and the U.K.) and increases the costs to other bidders by creating artificial scarcity in the amount of contestable spectrum at auction.

For completeness, Bell Canada notes that the U.S. FCC does continue to use, as a result of applicable Congressional legislation, a system of designated entity bidding credits. It is relevant however that such credits are specifically targeted at very small (i.e. < \$20 million annual revenues) business entities. Even here it has been identified that the system has proven to be difficult and has not achieved the intended policy objectives.

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

Based on the above comments and views, Bell Canada strongly believes that it would not be in the public interest to set-aside any spectrum for new entrants in the AWS spectrum auction.

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

Bell Canada does not believe that the public interest supports the use of set-asides. Bell Canada points to the evidence of other jurisdictions, where set-asides have been tried, and found to be not only ineffective but in fact damaging to the overall good. Indeed, Gilbert + Tobin in their *Spectrum Allocation Process: A Review of Global Experience*, filed with these comments note that:

. . . the mechanisms commonly employed by governments to encourage or facilitate a new market entrant usually fail to achieve the intended goal of enhancing competition in the longer term. International experience shows that favouring a new entrant does not usually result in sustainable, pro-consumer outcomes,<sup>25</sup>

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

While Bell Canada does not believe that the use of set-asides would be in the public interest, it does note that extreme care has to be taken to ensure that unintended opportunities for spectrum speculation are not created. Government needs to be cautious that it does not create opportunities for speculation in wireless spectrum. Bell Canada believes that this constitutes a transfer of wealth from the taxpayer to private speculators.

Industry Canada consulted, in its 1999 - 2000 PCS Auction Consultation, on whether a new entrant spectrum set-aside should be adopted. One of the reasons for its consideration of a set-aside was that a number of assertions had been made concerning the state of the Canadian wireless industry as it existed at that point in time. These included allegations to the effect that the Canadian wireless penetration rate seriously lagged European and U.S. rates; that technologically Canadian wireless infrastructure lagged that available in other countries; and that the only way to improve Canada's lagging wireless sector was to facilitate new entry by adopting a set-aside. Industry Canada, however, subsequently concluded that:

The Department found no compelling arguments that demonstrated that a set-aside of spectrum for new entrants would significantly advance new service offerings and expansion of digital service not attainable in an open-entry scenario. **Thus, the Department will not set aside spectrum for which only new entrants can apply.** However, new entrants are eligible to apply to bid for all spectrum blocks available through this licensing process.<sup>26</sup> [Emphasis in original]

---

<sup>25</sup> Gilbert + Tobin, *Spectrum Allocation Processes: A Review of Global Experience*, May 25, 2007, page 1.  
<sup>26</sup> Industry Canada, *Policy and Licensing Procedures for the Auction of Additional PCS Spectrum in the 2 GHz Frequency Range*, June 28, 2000, page 5.

Bell believes that the same conclusion, i.e. conducting an unrestrained market-based spectrum auction in which all parties including potential new entrants are eligible to apply to bid, would be in the public interest in 2007 as it was in 2000.

Finally, in this regard, Bell Canada notes that the views presented in these comments are predicated substantially on the belief that the adoption of a spectrum set-aside would not be in the public interest.

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

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

Bell Canada does not believe, given the current evolution and competitiveness of the Canadian wireless market, that an auction spectrum aggregation limit (spectrum cap) should be placed on the amount of spectrum that can be acquired by any single wireless service provider including its affiliates.

Tan and Krause comment, for example, on the practical difficulty that would be encountered in establishing an appropriate cap:

. . . Industry Canada will require very precise information about the future operational plans of all firms in the market in order to create a sensible cap on capacity. If the spectrum cap is too low, then new and existing services may not be deployed in the most efficient manner. If the spectrum cap is too high, then it has no effect on the market and is not necessary.<sup>27</sup>

Bell Canada notes that the Department, subsequent to a thorough public consultation, rescinded the mobile spectrum cap policy, in *Gazette Notice No. DGTP-010-04* –

---

<sup>27</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 24.

*Decision to Rescind the Mobile Spectrum Cap Policy*, August 2004. Bell Canada submits that the Department got it right in DGTP-010-04 when it stated that:

The Canadian cellular industry has extended coverage to more than 94 percent [now 97%] of the population and most major highways, and the migration to digital systems is well advanced. The wireless industry has matured and experienced tremendous growth in subscribers, and consumers are being provided with a range of voice and data services. After nine years, the Canadian wireless industry is well established.

In the near future, the wireless industry is going to have access to significantly more spectrum. The Department has proposed allocating and designating at least 100 MHz of new spectrum for the expansion and evolution of the cellular services such as advanced wireless services (AWS). As more spectrum becomes available, a spectrum cap policy to oversee spectrum concentration becomes less relevant.<sup>28</sup>

Bell Canada submits that, as the Department reasoned in the above decision, the Canadian wireless market is now a mature market and that the need for spectrum caps is less relevant than in the early days of the industry. Bell Canada also believes that, as the Department alludes to above, as more spectrum becomes available the arguments in support of a spectrum cap to oversee spectrum concentration become even weaker today than they ever were in the history of the industry. In this regard, Bell Canada notes that in addition to the 105 MHz of spectrum being consulted on in this process, there is significantly more spectrum, e.g. the AWS upper band, the 2.5 GHz band and the 700 MHz band, which will likely be consulted on in the near future.

Bell Canada also notes that the FCC did not impose spectrum caps in its recent AWS auction noting, in its *AWS Rules*, that:

We agree with those commenters who oppose a spectrum aggregation limit for the 1710-1755 and 2110-2155 MHz bands, and will impose no specific aggregation limitations on this spectrum. We do not agree with U.S. Cellular and RCA, who argued in favor of restricting the initial aggregation by any winning bidder to 20 or 30 megahertz in the same geographic licensing area. We believe that entities should have the unrestricted flexibility to aggregate spectrum in these bands. Parties should be afforded the flexibility at auction and in the secondary market to

---

<sup>28</sup> Industry Canada, Gazette Notice No. DGTP-010-04 – *Decision to Rescind the Mobile Spectrum Cap Policy*, August 2004, para. 9 -10.

aggregate sufficient unencumbered spectrum for them to make available new and innovative service to the public.<sup>29</sup>

Bell Canada agrees with the FCC's reasoning in this regard and believes that the public interest lies in affording all bidders the maximum flexibility to aggregate spectrum thus enabling them to make new and innovative wireless services available to the Canadian public.

Tan and Krause also do not support the notion that spectrum aggregation limits are required in order to promote competition in the wireless sector:

. . . the extent of competition in the Canadian wireless sector does not require government to intervene and attempt to make the market "more" competitive. Given the risk of market inefficiencies and the difficulty in determining the appropriate cap, Industry Canada should not impose spectrum aggregation limits.<sup>30</sup>

In summary, Bell Canada submits that given: (i) that the industry has matured; (ii) additional spectrum is becoming available; and together with (iii) the use of market-based spectrum auctions to assign the spectrum to the most efficient user, the issue of spectrum concentration, as the Department noted in its 2004 Notice rescinding the mobile spectrum cap, is no longer relevant and should not be adopted in the AWS auction.

### **Mandated Roaming**

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

Bell Canada strongly opposes any proposal to mandate radiocommunication carriers to offer roaming services to competing Canadian carriers.

---

<sup>29</sup> FCC, *In the Matter of Service Rules for Advanced Wireless Services, Report and Order*, Released November 25, 2003, paragraph 67.

<sup>30</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 25.

Bell Canada believes that it is wrong to presume that a problem exists and, as a result, to impose a heavy-handed regulatory solution where none is required. Again, this would be contrary to the principles enshrined in the Policy Direction. The best way to handle the issue of access to roaming is through the same commercially developed, market-based solutions that have led to the regional, national and world-wide roaming agreements that are commonplace today. Mandated roaming, moreover, would require mandated prices which would in turn require perfect information, something which Bell Canada believes is impossible to determine. Further, experience in the wireline sector indicates that measures such as this puts a significant chill on others building out their own facilities-based networks. In this regard, the *Telecommunications Policy Review Final Report* noted that:

"Therefore, while the CRTC has identified facilities-based competition as an objective of its regulatory framework, it has adopted mandated wholesale access policies that, in the Panel's view, seriously undermine, if not foreclose, the achievement of that objective."<sup>31</sup>

Even if it were technically possible for all carriers to roam on the networks of competing carriers, it would not be good public policy to mandate this result. As noted above, what would prevent new entrants or even a less built-out existing wireless carrier, for example, from riding on the network of the more extensively built-out carrier rather than spending the capital necessary to build out its own facilities-based infrastructure? In this regard, even when analog roaming was provided to the 1995 PCS new entrants, it was intended, as the Consultation Paper notes, as a temporary offset while the new entrants built out their networks. Clearly, the implementation of permanent roaming on competitive networks holds the potential to distort competitive markets.

Second, it is not technically possible for competing carriers, utilizing different air interface technologies (e.g. CDMA versus GSM), to roam on each other's networks with existing equipment. The only way to achieve this would be to also require the use of multi-band handsets, something which would impose significant uneconomic costs on the industry.

Tan and Krause note in this regard that;

---

<sup>31</sup> TPR Panel Final Report, page 3-35.

Allowing carriers with better information about the market to negotiate private roaming arrangements would achieve an efficient outcome. If Industry Canada regulates roaming service, it needs to determine appropriate access fees, which from previous telecommunications experience is extremely difficult to do. Furthermore, mandatory roaming creates a free-riding problem and discourages investment and innovation which is not good for the industry or consumers.<sup>32</sup>

For all these reasons, Bell Canada submits that any proposal to mandate digital roaming amongst competing carriers is not practical, would impose unwarranted economic costs on the entire industry and would seriously distort competition throughout Canada.

***Comments are invited on the extent to which the lack of mandated roaming could be a barrier to entry into the wireless market.***

Mandated roaming, as described by the Department in this Consultation Paper, is both impractical and would constitute a serious distortion to the operation of competitive wireless markets. No administration in the G8 group of countries requires mandated roaming in the form contemplated in the Consultation Paper. Bell Canada does not believe that the lack of mandated roaming would be a barrier to entry in the wireless market.

***Comments are sought on what services should be included in any mandated roaming and to what specific frequency band(s) roaming should apply.***

Bell Canada submits that no services or frequency bands should be subject to a mandated roaming requirement.

---

<sup>32</sup> Guofu Tan and David Krause, *Economic Issues Relating to the Framework to Auction Spectrum in the 2 GHz Range*, May 25, 2007, page 25.

***Comments are sought on the mechanisms that would best implement the policy objectives regarding roaming.***

Bell Canada submits that allowing market forces, rather than regulatory fiat, to dictate the commercial terms and conditions of any roaming arrangements entered into, just as is the case with roaming agreements today, is the correct approach.

## **Technical Considerations**

### **Spectrum Bands**

#### **The Bands 1710-1755 MHz and 2110-2155 MHz**

***Comments are sought by the Department as to whether:***

- 1. the band plan as proposed should be adopted in Canada — if not, please provide specific alternative options and the rationale supporting your suggestion;***
- 2. the technological neutrality related to duplexing should be adopted in Canada — if not, please provide the rationale supporting your view.***

***Whether the band plan as proposed should be adopted in Canada – if not, please provide specific alternative options and the rationale supporting your suggestion?***

Bell Canada does not recommend that the band plan identified in Figure 1 of the Consultation Paper should be adopted in Canada. Instead, Bell Canada recommends, for the reasons discussed below, that the FCC band plan should be adopted for the Canadian AWS spectrum which is subject to this Consultation.

As Industry Canada notes in the Consultation Paper, in response to the 2003 AWS consultation:

Respondents to the AWS consultation paper expressed that it will be important for Canada to harmonize its spectrum usage and technical

requirements with the international community and especially with the United States.<sup>33</sup>

In this regard, and based on sound spectrum management principles, Industry Canada has a long track record of harmonizing spectrum allocations and technical requirements with the U.S. Such harmonization will for example:

- a. Facilitate more effective Canada – U.S. border frequency coordination such that customers can maintain call quality within and between border cities;
- b. Reduce potential base station and terminal complexity resulting from the adoption of Industry Canada's proposed band plan. This eventuality arises due to the fact that international equipment vendors' design efforts focus on the parameters of the U.S. and Asian markets rather than the relatively small Canadian market; and
- c. Allow for exploitation of economies of scale.

#### Border Coordination

Cross border coordination has been a challenge for the industry since the first cellular systems were put into service in the mid-1980's. Considerable effort has been expended to ensure, for example, that wireless 911 and other services work as intended in contiguous areas that generate significant wireless traffic on both sides of the Canadian/US border. Historically, most of these issues have been resolved by mutual agreement between carriers to link systems together at the network level, in the case where a common technology is used; or, alternatively, agreement to not use a portion of the spectrum along a buffer zone adjacent to the international border when network coordination is not possible. Historically these systems had narrow band channels and, within the spectrum allocation, an accommodation was made to facilitate service albeit at a reduced total capacity.

As communications technology evolves there is a trend towards the deployment of wider band channels. Most of the candidate technologies for this AWS band, for example, deploy carriers that are 5 MHz or greater and this reality severely constrains the

---

<sup>33</sup> Industry Canada, *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, Notice No. DGTP-002-07, February 2007, page 2.

coordination options available to the impacted operators along the densely populated Canada/US border.

Adoption of the FCC band plan will also allow for a higher probability that more integrated methods of border coordination, such as coordinated handoffs and 'roam-free' zones, can be accomplished. If the same technology and equipment are used between both border operators, then it is possible to facilitate more efficient handoffs such that better voice and data quality are provided to the customer. In addition, this border partnership can reach an agreement to create a designated 'roam-free' zone where accidental roaming (i.e. where a customer on one side of the border is accidentally picked up by the network on the other side of the border) will not be detected by the customer. As a result, the customer's phone can be programmed to not display the 'roam light' and roaming fees will not be charged.

In summary, if Canada adopts the same band plan as the US, all three 10 MHz blocks on the Windsor side will have the identical amount of available spectrum. Also, while each of the 5 MHz blocks will be identically encumbered which is although unfortunate it at least provides a level playing field for the operators holding the 5 MHz licences.

#### Simplified Base Station Design

Bell Canada supports the RABC's comments to the effect that:

While some frequency agility of equipment is likely, it is possible that base station equipment may deploy specific sub-band filters and in this context, synergy with FCC band-plans may be more economic.

#### Economies of Scale

Bell Canada also notes the Department's comments, regarding the band 1670 – 1675 MHz, to the effect that:

To benefit from [equipment] economies of scale for the deployment of systems, the Canadian band plan for this spectrum should be the same as that adopted by the FCC.<sup>34</sup>

---

<sup>34</sup> Ibid., page 27.

Bell Canada submits that the same consideration, i.e. benefiting from economies of scale by adopting the US AWS band, is both applicable and is even more relevant with respect to the 1710-1755 and 2110-2155 MHz core AWS bands.

***Whether the technological neutrality related to duplexing should be adopted in Canada – if not, please provide the rationale supporting your view?***

Although Bell Canada agrees to the principle of TDD operation in the sub-bands provided that interference issues are managed, it not clear how this can be achieved given the current state of radio communication technology. It is generally believed that at least 2.5 MHz must be reserved between the transmitter and the potential victim receiver. It is assumed that the guard band must be located in the spectrum block being used for TDD operation, since the onus is upon the TDD operator not to cause interference. Since some of the proposed blocks are only 5 MHz wide, the guard band would constitute the whole of the 5 MHz spectrum block of the TDD license holder. If it is determined that the guard band between TDD and FDD systems should be greater than 2.5 MHz, then the amount of spectrum for TDD operation would be further reduced. Since guard bands are not used to transmit data, they reduce spectral efficiency. Since TDD systems require the use of guard bands, it is advisable that TDD systems should not be deployed in the AWS band so that overall spectral efficiency of the AWS band can be maximized.

#### **The Band 1670-1675 MHz**

***Comments are sought by the Department as to whether:***

- 1. the band plan as proposed should be adopted in Canada — if not, please provide specific alternative options and the rationale supporting your suggestion;***
- 2. the technological neutrality related to duplexing should be adopted in Canada — if not, please provide the rationale supporting your view.***

***Whether the band plan as proposed should be adopted in Canada – if not, please provide specific alternative options and the rationale supporting your suggestion?***

Bell Canada concurs with the band plan as proposed by the Department. Bell Canada also supports the comments of the CWTA and the RABC to the effect that the Department should consider, in addition to the possibility of licensing this band to a single bidder in this auction, the possibility of licensing a single consortium of service providers to deploy the band in Canada. Bell Canada also concurs with the RABC's view that such an approach may require the Department to permit joint or related party bidding on these licences separate from the other licences in the auction.

***Whether the technological neutrality related to duplexing should be adopted in Canada – if not, please provide the rationale supporting your view?***

Bell Canada agrees to TDD operation in the sub-bands provided that interference issues are managed as per an acceptable mask.

**The Bands 1910-1915 MHz and 1990-1995 MHz**

***Comments are sought by the Department as to whether:***

- 1. the band plan as proposed should be adopted in Canada — if not, please provide specific alternative options and the rationale supporting your suggestion;***
- 2. the standards for PCS should be applicable to this spectrum — if not, please provide the rationale supporting your view.***

***Whether the band plan as proposed should be adopted in Canada – if not, please provide specific alternative options and the rationale supporting your suggestion?***

Bell Canada concurs with the adoption of the band plan as proposed by the Department.

***Whether the standards for PCS should be applicable to this spectrum – if not, please provide the rationale supporting your view?***

Bell Canada concurs that the standards for PCS should be applicable to this spectrum.

### **Service Areas**

#### **AWS Service Areas 1710-1755 MHz and 2110-2155 MHz**

***Comments are sought on the proposed tier sizes for AWS spectrum.***

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

Bell Canada does not support the proposed service areas for the AWS spectrum. In particular, in Bell Canada's view, the adoption of Tier 3 and 4 service areas are far too granular and will make the implementation of the spectrum cumbersome. Moreover, the problem of frequency coordination at the border of adjacent service areas will be severely magnified, as a result of the use of numerous small licence areas, if either Tiers 3 or 4 are adopted. As the Department notes, the spectrum should accommodate high-speed mobile applications, as has the U.S., and in Bell Canada's view this can best be accommodated by employing tier sizes which facilitate the deployment of wide area systems - whether for new coverage or the extension of capacity.

Border areas, between alternate service providers, can be classified as areas with greatly reduced spectral efficiency since part of the spectrum is unused in order to not create interference into the neighbouring system or suffer the effects of interference from neighbouring systems. To maximize spectral efficiency, it is recommended that the number of licences around border areas be minimized to the greatest extent possible. This implies that service areas should have the greatest amount of geographic area so that border areas constitute a small percentage of the total area.

Typically, a service provider must expect to coordinate spectrum usage with a neighbouring service provider in an area extending at least 25 km from the border. This border area would constitute the majority of Tier 3 and Tier 4 service areas in the more

densely populated areas of the country. In some of the smaller Tier 4 service areas, the border area would constitute the whole of the service area.

In the past, as noted by the Department, Canada has licensed spectrum on a national basis. Bell Canada believes that a national licensing approach has served Canada well, especially when compared to the fragmented licensing approach and resulting problems experienced in the U.S. (e.g. coverage gaps, customers triggering unintended roaming fee due to hand-off between different licensees). Bell Canada believes that a national licensing approach should continue to be applied in Canada. As Crandall and Ingraham note:

Despite the FCC's efforts to effect competition in the wireless industry through subsidized entry, the U.S. wireless industry has evolved into a dynamically competitive industry of large nationwide carriers.<sup>35</sup>

If the Department does not adopt a national licensing approach, it should license the AWS spectrum on the basis of Tier 2 service areas at a minimum. This was the approach followed in the 2001 PCS auction and should be the minimum service area configuration adopted for the AWS spectrum. The Tier 2 service areas are based on Statistics Canada census divisions, and result in 14 areas covering all of Canada. Bell Canada also submits that Tier 2 regional spectrum blocks would provide the greatest degree of flexibility for those requiring spectrum for expansion or to meet capacity constraints in certain areas. Further, as the Department noted in its 2000 PCS Auction Final Policy, regional spectrum blocks can also be aggregated by those wishing to provide national services. Therefore, Bell Canada recommends the use of a national tier service area or in the alternative licensing the AWS spectrum blocks on a regional basis using the Department's Tier 2 geographic service areas.

Concerning the question of whether the block and tier sizes proposed by Industry Canada will allow the entry of new carriers in the market, Bell Canada does not believe that the technical and band plan design for the AWS auction should be fundamentally designed or predicated on the possibility of new entrants. It should instead be designed to: (1) deliver spectrum to those who will use it best; (2) secure significant funds for the public coffers and (3) in the context of the specific question, achieve the maximum

---

<sup>35</sup> Robert W. Crandall and Allan T. Ingraham, *The Adverse Economic Effects of Spectrum Set-Asides*, May 24, 2007, page 8.

spectral efficiency possible, while effectively integrating with existing national and regional systems. In any event, as noted above, Bell Canada does not believe that the block plan proposed in the Consultation Paper should be adopted in Canada. Further, there is no reason why financially and technically capable new entrants should not be able to develop a system using the recommended FCC band plan licensed on either a Tier 1 or 2 service area basis.

Since large contiguous service areas are more suitable for mobile service than small non-contiguous service areas, auctioning Tier 2 service areas will eliminate the undesirable situation where a participant obtains the licence in a number of small non-contiguous service areas. Participants will have the assurance of obtaining a licence for a large service area or nothing, either scenario being more preferable to a patch-work collection of small licence areas. This reduction in uncertainty will make the spectrum blocks more valuable in the eyes of all participants.

#### **PCS Expansion Service Areas, 1910-1915 MHz and 1990-1995 MHz**

***Comments are sought on the proposal of Tier 2 service areas.***

Bell Canada concurs with the Department's proposal to use Tier 2 service areas for the licensing of the PCS Expansion band.

#### **1670-1675 MHz Service Areas**

***Comments are sought on the proposal of Tier 2 service areas.***

Bell Canada concurs with the Department's proposal to use Tier 2 service areas for the licensing of the 1670-1675 MHz band.

***Comments are requested on technical considerations for AWS systems in the applicable bands.***

### **Co-channel / Adjacent Area Coordination**

Bell Canada supports the views of the RABC, concerning Co-channel / Adjacent Area Coordination, and believes that the proposed process and criteria is appropriate and that the existing RSS and SRSP standards are applicable. Bell Canada also supports the RABC's statement to the effect that it will be crucial that any revisions to those documents be closed by the time that auctions occur i.e. before deployment and detailed planning commences.

Bell Canada also supports the RABC's view that coordination at the US/Canada border will be simplified if the sub-band plan is harmonized with the US, as only a single co-frequency operator needs to be coordinated with. On the other hand, for disparate band-plans, a Canadian operator would typically have to coordinate with two or more US operators.

### **Adjacent Channel/Same Area Coordination**

Bell Canada submits that that the coordination rules similar to the current PCS rules should be followed as proposed in the Department's Consultation Paper.

### **Sharing Issues with Other Services**

**Comments are requested on technical considerations for sharing of AWS systems with other services in the applicable bands.**

Bell Canada agrees with the Department's proposal that a Standard Radio System Plan (SRSP) will be required to be developed for each of the above bands.

## Licensing Process

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

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

Bell Canada provides its comments on each of the elements of the licensing process below.

- the proposal to use a 10-year licence term;***

Bell Canada does not believe that a 10-year licence term is appropriate given the development of the Canadian wireless market. Bell Canada submits, for the reasons discussed below, that it is now timely for the Department to seriously consider, assuming ongoing compliance by licensees with conditions of licence, the use of indefinite licence terms for wireless service providers operating as radiocommunication carriers who acquire spectrum through an open market auction (i.e. without the assistance of regulatory intervention such as set-asides). Bell Canada notes that such a move would be consistent with the actions of other regulators, e.g. FCC and Ofcom, who have either

moved to 15 and 20 year licence terms, and who are considering the movement toward indefinite terms, assuming compliance with applicable conditions of licence.

Bell Canada proposes indefinite licence terms for the following reasons. The wireless sector is no longer a small sector in the overall Canadian telecommunications market. As noted in the Consultation Paper, the CRTC's July 2006 Telecommunications Monitoring Report noted that:

The wireless market continued to display strong growth and remained competitive in 2005. Wireless revenues increased from \$9.5 billion in 2004 to \$11.0 billion in 2005, a \$1.5 billion or 16.2% increase. This strong growth made the wireless market the largest sector in the telecommunications market, accounting for 32% of the industry's revenues. The number of wireless subscribers increased from 15.0 million subscribers in 2004 to 17.0 million in 2005, an increase of 2.0 million subscribers or 13.3%. Three major wireless service providers accounted for over 90% of the wireless market, with no provider dominating in terms of either revenues or subscribers. . . .<sup>36</sup>

It is time to change the way we think about established radiocommunication carriers with a large customer base. Wireless telecommunications in 2007 is business on a large scale, e.g. \$20 billion invested to date with approximately \$1.5 billion a year invested on an ongoing basis with direct and indirect employment of 25,000 Canadians. The entities providing facilities-based wireless services in Canada today are large, well financed and well managed Canadian corporations. Given the cumulative and ongoing investment in the sector, the costs of licence withdrawal at the end of a licence term of short duration would be both enormous and devastating for the affected firm.

From a customer perspective, is it practical that a spectrum licence could even be withdrawn? What would happen to the affected carrier's customer base, and their business, personal and 911 calls, in such an eventuality? This is not to suggest that the Minister would not have recourse in the event of a substantial issue of non-compliance. As the Consultation Paper notes, the *Radiocommunication Act* provides the Minister with virtually unlimited authority to modify or withdraw the licence. Bell Canada submits however that the financial and customer realities of the Canadian wireless market and industry today are such that the issue of substantial non-compliance is not likely to arise.

---

<sup>36</sup> Industry Canada, *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, Notice No. DGTP-002-07, February 2007, page 17.

Bell Canada believes that it is in the public interest that Industry Canada should promote a stable investment climate in the sector and suggests therefore that the licence term of any AWS spectrum acquired through an open auction be set with an indefinite term.

• ***whether an interim implementation requirement should be imposed;***

As the Consultation Paper noted, the FCC has decided not to impose a mid-term implementation requirement on its AWS spectrum licences. Bell Canada notes that Ofcom similarly has, in recent consultations, dispensed with the requirement for mid-term implementation requirements for auctioned spectrum. While mid-term implementation requirements might be appropriate for licences acquired through FCFS or comparative licensing processes, which would entail annual licence fees rather than substantial upfront auction payments, Bell Canada notes the Department's statement in its *Framework for Spectrum Auctions in Canada*:

In February 1996, Industry Canada announced its intention to introduce the use of spectrum auctions where reliance on market forces to select licensees was deemed to be in the public interest. A spectrum auction is a market-based tool that allows the Government to identify those entities who value the spectrum the most and who will therefore be assumed to put that spectrum to its most efficient use. Auctions are also procedurally efficient and provide a means for Canadian taxpayers to be compensated for the use of this public resource.<sup>37</sup>

Bell Canada submits that those who pay the most for the spectrum have the incentive as well as the technical, financial and business capacity to best manage the spectrum. To the contrary, artificial micromanagement, such as implementation requirements, imposed on licensees who acquire spectrum through an open auction, can force licensees to make unnecessary and inefficient technological and capex investments simply to meet an interim implementation date.

The fact that the spectrum is paid for up-front, as was noted numerous times in the Department's 1995 consultation concerning the implementation of spectrum auctions in

---

<sup>37</sup> Industry Canada, *Framework for Spectrum Auctions in Canada*, October 2001 (Issue 2), page 1.

Canada, is an enormous motivator not to hoard spectrum. Shareholders, having invested their capital, will demand a return as soon as possible. Bell Canada submits that the reality of the business environment in 2007 is that stricter adherence to corporate governance standards and duties to shareholders provide much more of an incentive to put it to use than could any condition of licence. The Department is correct not to propose a mid-term implementation requirement as a condition of licence.

- ***if yes, respondents should provide a rationale and an explanation of the implementation parameter(s) the Department should consider, the time frame for such a measure and the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area);***

For completeness, Bell Canada has responded "no", for the reasons provided above, with regard to the question of whether an interim implementation requirement should be imposed.

- ***whether the renewal expectancy provisions and process are suitable;***
- ***if not, respondents should provide a description of the rationale for different approaches;***
- ***whether requiring application for renewal 2 years before licence expiry is appropriate;***

For many of the same reasons stated above, Bell Canada strongly disagrees with the proposed renewal expectancy provisions and process and believes that both are wholly inappropriate.

Bell Canada notes that Industry Canada's *Framework for Spectrum Auctions in Canada*, October 2001 was developed through a public consultation with the industry and interested parties. While providing the general framework and rules that will govern spectrum auctions, it stated that should the Department wish to deviate from the framework, it would do so in the consultation preceding a specific auction. In this regard,

Bell Canada notes that, regarding licence term, the Auction Framework states under Section 4.5 that:

A spectrum licence issued via an auction will generally be valid for ten years from the date of licence issuance with a high expectation of renewal for a further ten-year term unless a breach of licence condition has occurred, a fundamental re-allocation of spectrum to a new service is required, or an overriding policy need arises.

A public consultation regarding the renewal of the licence will commence no later than two years prior to the end of the licence term if the Department foresees the possibility that it will not renew this licence or if renewal fees are contemplated.<sup>38</sup>

Further, in the Department's *Questions and Answers – Framework for Spectrum Auctions in Canada* in response to Question 9 - "What is the length of the licence term?"

- Industry Canada states that:

The Department intends to auction licences with a ten-year term and a high expectation of renewal at the end of the term. That is to say, the Department intends to generally renew auctioned licences for subsequent ten-year terms unless a breach of licence condition occurs, a fundamental reallocation of spectrum to a new service is required (e.g. a reallocation by the International Telecommunication Union), or an overriding policy need arises (e.g. a spectrum reallocation to address a national security issue). To provide a more stable investment climate for licensees, a consultation process would commence no later than two years prior to the end of the licence term (i.e. after year eight) if the Department foresaw the possibility that a licence would not be renewed. The imposition of any renewal fees and/or amendments to licence conditions for the initial licensees in the subsequent term would also be addressed in a consultation process which would commence no later than two years prior to the end of the licence term.<sup>39</sup>

Bell Canada notes that the wording and the intent of the above two sections clearly recognize and signal the need for "a stable investment climate" or business certainty. Bell Canada notes that this differs dramatically from the proposed wording under Part II Section 5.1 of the Consultation Paper regarding licence term which states that "Licences have a term of 10 years, with the possibility of renewal for an additional term of up to 10 years." (Emphasis added)

---

<sup>38</sup> Industry Canada, *Framework for Spectrum Auctions in Canada*, October 2001 (Issue 2), page 7.

<sup>39</sup> Industry Canada, <http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/sf01854e.html>

The Consultation Paper's proposal and language instead send a message of uncertainty which could result in, given unforeseen economic or business circumstances, destabilization of the investment climate for either the wireless industry as a whole or a specific licensee. Such a result would not, Bell Canada submits, be in the best interests of customers, the licensees or Canada in general.

Compounding this uncertainty even further is the proposed language under Section 5.4 in the Consultation Paper, Conditions of Licence, regarding licence term. In the Framework and Q&A documents, noted above, the onus is on the Department to initiate a consultation in the event that it anticipates a non-renewal circumstance arising. In other words, barring substantial non-compliance with its conditions of licence or an extraordinary requirement to reallocate the spectrum in question, e.g. for national security purposes, the licensee can continue to invest in the use of the spectrum with reasonable anticipation, indeed a high expectation, that its licence will be renewed at the end of the term and without any need for an application process. The proposed Condition of Licence however reverses the onus, placing it on the licensee, by indicating that "At a minimum of 2 years before the end of the [initial] term, and any subsequent terms, the licensee may apply for licence renewal for an additional licence term of up to 10 years . . . "

In general, Bell Canada sees a number of problems with the proposed renewal expectancy provisions and process including: (i) it would be a highly inefficient process compared to the process which is in place today; (ii) it would be administratively costly for both the licensees and the Department; (iii) given the public nature of such a process it could be subject to regulatory gaming; (iv) it could make obtaining financing more difficult; and (v) the resultant uncertainty regarding the possibility of renewal could dampen investment as the renewal period draws near. Further, all of the above would be inconsistent with the Telecommunication Policy Direction's desire for streamlined processes and more efficient regulation generally. In addition to the investment uncertainty which would be created by the proposed licence term, Bell Canada submits that the related proposed condition of licence would: (1) exacerbate that uncertainty by introducing an application process where none exists today; and (2) needlessly increase bureaucratic workload for the Department and all licensees by creating the need for renewal applications where no such requirement exists today. In this regard, even the

Department recognized the fundamental business need for certainty when it observed in its Consultation Paper that:

A longer licence term provides bidders with greater certainty of the period in which they will be able to recover the costs associated with delivering services.<sup>40</sup>

As a result, Bell Canada strongly recommends the following. In the interests of maintaining and increasing business certainty, the term of the licences for spectrum acquired through an auction should be indefinite. Bell Canada notes that this would harmonize with the current trend toward substantially longer licence terms observed in a number of administrations around the world and would enhance, not discourage, the investment climate in the Canadian wireless sector. In the event the Department chooses to apply a license term other than indefinite, Bell Canada also strongly recommends that the original concept of a "high expectation of renewal" at the end of such adopted term be retained. Bell Canada notes the onus would again be on the Department to initiate a consultation, as it is today, if it anticipates non-renewal, a change in applicable conditions of licence or the imposition of post-initial term licence fees.

**• the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area);**

Bell Canada submits that, for auctioned licences, an affidavit signed by an officer of the company attesting to compliance with applicable conditions of licence should be sufficient.

---

<sup>40</sup> Industry Canada, *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, Notice No. DGTP-002-07, February 2007, page 34

**• the provisions the Department should consider when a licensee is determined to not fully meet the renewal expectancy requirements (e.g. the revocation for part or all of the spectrum or geography).**

As noted above, for the established radiocommunication carriers, and given that the context of this discussion is with regard to auctioned spectrum, this occurrence would be a truly exceptional event. Bell Canada notes that in the Department's *Consultation on a Proposed Procedure to Determine Compliance with Licence Conditions Prior to Further Licensing*, Notice No. DGRB-002-01, February 2001, it was proposed that the Department and the licensee in question would discuss such a possibility and the non-compliant licensee would, if the non-compliance is confirmed, be given an opportunity to come into compliance. Bell Canada believes that a similar approach, if one is even needed, should apply in the very exceptional circumstance proposed in this question.

As an alternative, the Department could implement, subject to prior public consultation, a system of "administrative fines" which could be levied against the non-compliant licensee.

#### **Conditions of Licence**

***The Department seeks comments on the proposed conditions for the AWS, PCS expansion and 1670-1675 MHz spectrum bands.***

#### ***Licence Term:***

See comments above.

#### ***Licence Transferability and Divisibility:***

Bell Canada concurs with the proposed transferability and divisibility proposals for the AWS, PCS expansion and 1670-1675 MHz spectrum bands.

***Departmental Approval is Required for Each Proposed Transfer, Whether the Transfer is in Whole or In Part:***

Bell Canada supports the transferability and divisibility of the AWS, PCS expansion and 1670-1675 MHz spectrum band licences. Concerning licence transfers, in whole or in part, between licensed radiocommunication carriers however Bell Canada proposes that such transactions should be subject to a Departmental notification requirement, rather than a Departmental approval requirement. Existing radiocommunication licensees, by definition, are well known to the Department, meet applicable eligibility criteria and could still provide, as part of its notification, an attestation that it will abide by the conditions of the transferred licence. To streamline the process, in accord with the Telecommunications Policy Direction, the notification could be deemed as approved if no issue had been raised by Industry Canada within 30 days of filing notification. In the event that Industry Canada had Canadian ownership and control concerns, it could step in, during the 30 day period to convene a review process. In contemplation of such eventualities, Industry Canada should also develop service standards for review.

In the event that any spectrum allocated as part of a "new entrants' spectrum set-aside" is to be transferred in whole or in part, subsequent to the auction, then provisions are required to prevent unreasonable windfall benefits from the transfer accruing to private entities as opposed to the Canadian tax payer.

***Eligibility Criteria:***

Bell Canada concurs with the proposed eligibility criteria proposed for the AWS, PCS expansion and 1670-1675 MHz spectrum bands.

***Displacement of Incumbents:***

Bell Canada concurs with the transition policy requirements as proposed in the Consultation Paper.

### ***Radio Station Installations:***

#### **CPC 2-0-03**

Bell Canada concurs with the requirement that licensees must ensure that radio stations are installed and operated in a manner that complies with Industry Canada's Client Procedures Circular 2-0-03, *Environmental Process, Radiofrequency Fields and Land-Use Consultation (CPC 2 -0-03)* [Existing Tower Policy]

#### **Towers**

The Consultation Paper notes that the Department has conducted a study and public consultation on the environment related to Canada's authorization processes for radiocommunication antennas and their supporting structures. The Department states that the objective of the review was to examine possible improvements to Industry Canada's existing antenna tower siting policies and approval procedures. The Department further notes that while it has yet to release the updated antenna procedures, comments are sought on related issues that parties may consider relevant to AWS. Bell Canada's views are provided below.

Bell Canada notes that concerns related to antennae towers typically relate to:

- Competitive access to towers to ensure the timely expansion of Canada's telecommunications infrastructure;
- Prohibiting carriers from entering into exclusive arrangements for locating telecommunications antennae on rooftops;
- Proliferation of antenna towers across Canada raising concerns regarding:
  - visual impact of antenna structures
  - potential health effects of exposure to radio energy fields
  - concerns about radio interference.

The following provides Bell Canada's views on each of the above issues.

## **Competitive access to towers to ensure the timely expansion of Canada's telecommunications infrastructure**

Bell Canada notes that during the course of Industry Canada's *National Antenna Tower Policy Review Consultation* the now defunct Microcell Telecommunications was absolutely alone in recommending that government mandate tower sharing. None of the remaining three national wireless carriers or several regional carriers recommended regulatory intervention in this area. Instead these carriers preferred to work out their tower access arrangements, both among themselves as well as with other utilities, in the competitive marketplace. Consistent with the theme of reliance on market forces where appropriate, Bell Canada believes that access to wireless towers should be determined by the marketplace, not by regulators, as it has since the inception of the industry.

As a concrete example, Bell Canada notes that in the 2001 PCS spectrum auction Bell Mobility acquired new spectrum in BC and Alberta. Bell Mobility was effectively in the position of a new entrant in the West having to acquire and/or build a new network from the ground up. Ultimately, in less than a year Bell Mobility negotiated access to or constructed sufficient sites (over 350 including towers) to turn up a wireless network throughout the two provinces. While some sites were constructed new, in approximately one half of the cases Bell Mobility negotiated access to existing sites, towers and rooftops. There were no irresolvable issues and there certainly was no, and indeed no need for, regulatory intervention to resolve these multi-faceted issues.

Bell Canada notes that existing Industry Canada Tower policy strongly encourages wireless carriers to share towers where structurally and technically feasible. Unquestionably, carriers consider it to be in their own best interest to enter into sharing arrangements wherever possible. Simply put, it is far less expensive and far more expedient to share towers, where feasible, than to build new.

The fact that a carrier may not provide access is not a cause for concern. There may, for example, be valid technological reasons for not providing access. Tower placement is not always a straightforward process. It involves complex technical considerations and entails significant capital expenditures. Consultations are frequently required, at the federal and municipal as well as general public levels, to obtain necessary approvals.

An existing tower, for example, however may not be able to support additional antennae without raising structural stability issues.

Further, since they operate in different frequencies and use different transmission technologies, the location of two or more carriers on any one tower may be technically incompatible, due to interference issues, thus rendering sharing impossible. All of these factors can sometimes make it impractical for carriers to share cell sites or towers. In addition, some municipalities have expressed a preference for multiple low profile "pole-like" structures as opposed to a single but massive "Christmas Tree" installation hosting several carriers. Nonetheless, taking all forms of sharing into account, approximately 50% of all towers and cell sites in Canada are currently shared by two or more carriers or utilities. Bell Canada believes this to be a reasonable and practical sharing ratio. Finally, in this regard, there are legal tools in-place to ensure that existing service providers will not delay access for anti-competitive purposes.

**Prohibiting carriers from entering into exclusive arrangements for locating telecommunications antennae on rooftops**

Exclusive rooftop arrangements were very common in the early days of the industry as the newly licensed carriers competed fiercely in large city centres for choice rooftop sites. Bell notes that, while some residual contracts remain, as a general practice exclusive rooftop arrangements have not been used for some time.

**Proliferation of antenna towers across Canada raising concerns regarding the visual impact of antennae structures**

Antenna towers are a necessary and unavoidable component of providing Canadians with a world-class wireless telecommunications infrastructure. As well as providing adequate radio coverage to support Canadians' business and social communications needs, they also provide the capability for critical wireless calls to 9-1-1 as well as other emergency uses. Annually carriers spend millions of dollars investing in low-profile stealth towers such as Bell Mobility has used in Vancouver's Stanley Park where one structure is disguised as an antique light post.

It is also noteworthy that from 2001 to 2006 the absolute number of towers and cell sites in Canada decreased as consolidation occurred in the industry. Conversely, the introduction of any new carriers into the industry will invariably result in the construction of new towers and cell sites, even with sharing occurring.

### **Potential effect on human health of exposure to radio energy**

Canadian carriers are required to adhere to Health Canada's Safety Code 6 which governs the permissible level of radio frequency (RF) emissions from all wireless antennae including those mounted on towers. Safety Code 6 is set at levels approximately 100 times below those recommended as safe by the medical and scientific communities. While these safety levels are measured assuming close proximity to the antenna, Bell notes that the actual RF emission levels from tower mounted antenna, at ground or street level, are frequently thousands of times below the maximum levels permitted by Health Canada.

### **Concerns about radio interference**

Bell Canada believes that Industry Canada has more than sufficient expertise, resources, authority and experience to address and resolve instances involving the detection of harmful radio interference, when the situation arises.

### **Summary**

In 1998, subsequent to a public proceeding considering requests for competitive access arrangements in the wireless sector, the CRTC noted that:

*In particular, in contrast to [then existing] wireline market, facilities-based entry was the initial form of competition in the wireless market. The Commission considers that the cellular and PCS markets are sufficiently competitive such that it cannot be said that facilities are monopoly controlled or cannot be economically or technically duplicated. (Telecom Order CRTC 98-1092).*

The Canadian wireless sector today is even more competitive than it was in 1998. More recently, in its 2006 Telecom Monitoring Report, the Commission still found that:

*The wireless market continued to display strong growth and remained competitive as revenues grew by 16.2%, from \$9.5 billion in 2004 to \$11 billion in 2005, making wireless the largest and fastest growing sector in the telecommunications market.*

Bell Canada submits that all the above demonstrates that market forces have been proven to be effective and consequently that there is no need for regulatory intervention in this highly competitive market. Canadian wireless carriers have invested over \$20 billion dollars of private capital developing a world-class infrastructure which the CRTC has consistently acknowledged as being the fastest growing sector in the Canadian telecommunications market.

Bell Canada also notes that given some of the possible outcomes contemplated in this Consultation Paper, a change in the rules regarding the tower siting and approval process would be very material to the valuations that prospective bidders might place on the AWS spectrum. Bell Canada suggests that any such change should be made known to potential participants well in advance of the auction commencement.

***Provision of Technical Information:***

Bell Canada concurs with the minimum radiocommunication installation data elements required for the Department's technical database as provided in Appendix B of Client Procedures Circular 2-1-23, *Licensing Procedure for Procedure for Spectrum Licences for Terrestrial Services (CPC-2-1-23)*. Bell Canada also concurs that each radiocommunication system and/or service will be unique and that, as a result, the particulars concerning the provision of updated technical information will be specified upon issuance of the spectrum licence.

***Compliance with Legislation, Regulations and Other Obligations:***

***International Coordination:***

Bell Canada concurs that licensees be subject to, and should comply with, the *Radiocommunication Act*, the *Telecommunications Act*, the *Radiocommunication Regulations* and the International Telecommunication Union's *Radio Regulations*

pertaining to its licensed radio frequency bands. Bell Canada also concurs with the proposal that licences be issued on condition that the certifications made in the application materials are all true and complete in every respect. Further, Bell Canada concurs that licensees must use the assigned spectrum in accordance with the *Canadian Table of Frequency Allocations* and the stated spectrum policy.

***Lawful Intercept:***

Bell Canada accepts the proposed condition of licence. The Company has a long history of cooperation with law enforcement and national security agencies and of facilitating agency access to private electronic communications – subject to appropriate legal process and judicial oversight.

The Company understands that new legislation may impose similar obligations on all telecommunications services and service providers, at significant cost to the Company and the telecommunications industry as a whole. Bell Canada notes that the auction proceeds for the AWS spectrum will be substantial. Rather than directing the whole of this amount to Consolidated Revenue, the Company would propose that a portion of these proceeds be designated to help underwrite the significant costs incurred by telecommunications service providers in building lawful access capability into telecommunications networks and in responding to lawful access requests by law enforcement and national security agencies. Bell Canada notes that the U.S. employed a similar approach, in its recently completed AWS spectrum auction, where a portion of the proceeds from the auction will be used to help clear the AWS bands currently occupied by the U.S. military, rather than being entirely deposited into government coffers.

***Research and Development (R&D):***

The Department proposes that licensees must invest a minimum 2% of their adjusted gross revenues resulting from their operations in this spectrum averaged over 5 years for the duration of the licence.

Bell Canada notes the comments of a group of regulatory experts, appearing before the TPR Panel, who when questioned concerning the application of the 2% R&D requirement, as a condition of licence, noted that regulatory requirements, such as conditions of licence, were not in their view an appropriate vehicle in which to implement national industrial development policies. It was noted that while such provisions may have been legitimate in the early days of the industry, it was questionable whether such requirements are still appropriate. To Bell Canada's knowledge, no other regulator applies such a condition of licence. Bell Canada also questions whether it is appropriate to apply R&D conditions over and above the prices paid at auction for the spectrum rights.

Bell Canada therefore recommends that the 2% R&D requirement be dropped from the proposed conditions of licence for auctioned AWS spectrum.

***Annual Reporting:***

Bell Canada suggests that other than the compliance affidavit suggested above, there should no requirement on radiocommunication carriers to submit annual reports to the Department.

***Post-auction Licensing Process***

**The Department seeks comment on all aspects of the proposed post-auction licensing process for AWS, PCS expansion and 1670-1675 MHz spectrum.**

The Consultation Paper notes that the Department may consider making unassigned licences available for licensing through an alternative process. The Department states that such process could include a re-auction, at a later date following the close of the auction. Noting that the timing and form of such a process will depend on the demand for the available licences, the Department indicates that it may conduct a public consultation should the Department consider it in the public interest.

Bell Canada believes that the Department should conduct a public consultation to determine the post-auction licensing process that will apply to any remaining AWS, PCS or 1670-1675 MHz spectrum. The Department now has experience with the post-auction licensing of PCS spectrum remaining in the Department's hands subsequent to the 2001 PCS auction. Given that such spectrum was not auctioned and is subject to license fees on an annual basis, Bell Canada submits that the Department's consultation should report on the implementation status of that non-auctioned spectrum.

### ***Financial Aspects of the Auction***

***The Department seeks comment on the opening bids and pre-auction deposit for AWS licences.***

Bell Canada concurs with the opening bids and pre-auction deposits proposed for the AWS licences.

### ***Bid Payment***

The Department proposes that winning bidders will be required to submit 20% of their high bids and 100% of any withdrawal penalties incurred within 10 business days of the auction's close. The Department also proposes that this payment will be non-refundable and, further, that if the winning bidder fails to make this initial payment in a timely manner, the licence will not be issued and the bidder will be subject to the applicable forfeiture penalty. Bell Canada supports these proposals.

The Department also proposes that the remaining 80% of the high bids will be due within 30 business days of the auction's close. It is further noted that failure by the winning bidder to make this final payment in a timely fashion will also result in the licence not being issued, and again, the bidder will be subject to the applicable forfeiture penalty.

Bell Canada notes that experience from the 2001 PCS Auction demonstrates that while the outstanding 80% is expected to be paid by high bidders, in a timely fashion, within 30 business days of the auction close, it can take a considerably longer period of time, for a

variety of reasons and in some cases in excess of a year or more after the close of the auction, for the Department to actually issue the applicable spectrum licences. Bell Canada notes that one rationale for the Department's adoption of spectrum auctions in Canada was to increase the timeliness of the delivery of spectrum to the market place. Bell Canada believes that where a legitimate requirement for additional spectrum is identified by the industry, the timeliness of its actual delivery into the marketplace should continue to be an important objective of the Department's licensing process, including after the conclusion of the auction.

Bell Canada recommends, therefore, that as an incentive to the Department to expedite this process, as well as a matter of natural fairness, the outstanding 80% of high bids should be payable coincidental with actual issuance of the licence to the winning high bidder. In any event it should be the Department's objective to issue the auctioned spectrum licences absolutely no later than three months after the auction's close.

The Department also notes that beyond the payment of the winning bid, no other licence fees or payments will be required for the duration of the licence term, as per subsection 5(1)(1.3) of the Radiocommunication Act. Bell Canada supports this position.