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**Subject: Canada Gazette, Part I, February 24, 2007, Notice No. DGTP-002-07
Consultation on a Framework to Auction Spectrum in the 2 GHz
Range including Advanced Wireless Services**

Dear Mr. St-Aubin:

The Radio Advisory Board of Canada (RABC) is pleased to respond to Canada Gazette, Part I, February 24, 2007, Notice No. DGTP-002-07 Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services.

The Board's response, prepared by a Working Group, is attached.

This response was balloted to Board members. Sixteen of the RABC's 21 members responded, as follows: 8 Approved, 3 Approved with comment, 5 abstentions and 0 disapprove ballots.

The Sponsor Member's comments (which form an integral part of the RABC's response) are:

Comments from TELUS:

TELUS agrees with the response excepting that TELUS does not agree the spectrum caps/spectrum aggregation limits are necessary nor required for the AWS spectrum auction.

Comments from Canadian Satellite and Space Industry Forum:

CSSIF members participated in the development of, and approve, the RABC contribution. CSSIF has also submitted a more detailed contribution in its own name.

Comments from Bell Telecom Group:

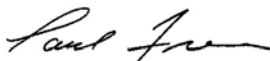
(1) Concerning Section 2.72 – Spectrum Aggregation Limit on Auctioned Spectrum.

Bell Canada is in agreement with the RABC's primary position that Industry Canada should conduct an unfettered auction without arbitrary requirements, such as spectrum aggregation limits on auctioned spectrum, being imposed. The RABC then goes on to suggest a spectrum cap quantum, in the event that the Department chooses to intervene in the market. Bell Canada's position is that a spectrum aggregation limit on auctioned spectrum is not warranted in the present circumstances. Bell Canada reserves its position with respect to the quantum of spectrum cap suggested by RABC in the event of the Department choosing to implement one.

(2) Concerning Section 4.1.2 – The Band 1670 – 1675 MHz.

Bell Canada supports the RABC's response that the Department should consider the possibility of licensing the band to a single consortium of service providers. Bell Canada notes that such consideration is in addition to, rather than instead of, the possible licensing of the band to a single service provider as contemplated in the Consultation Paper.

Yours truly



Paul Frew
President

Introduction

At the outset, the RABC applauds Industry Canada's decision to license additional mobile spectrum so that Canadian wireless carriers can continue to deploy and evolve their advanced wireless services (AWS) beyond the third generation (3G) services that have already been implemented throughout Canada. The RABC notes that this industry has, to date, undertaken a monumental task in that it has invested over \$20 Billion in the provision of state of the art technologies and services that have become critical enablers in the Canadian economy. While wireless services were a niche offering in 1985 when cellular spectrum was first licensed in Canada, they have since become an important driver of productivity and of the efficiency and competitiveness of Canadian businesses. Wireless services are also a valued lifeline for Canadians of all ages, are an important means for accessing the Internet, and are increasingly becoming a vehicle for the sharing of cultural and entertainment content.

Despite the challenges posed by Canada's geography, i.e. large land mass and relatively low population density, advanced wireless services are available today to over 98% of the Canadian population, and cover 1.3 million square kilometres of the country. The wireless industry has been competitive from the outset, and 90% of Canadians have a choice of three facilities-based wireless service providers in their community. An expanding array of mobile virtual network operators (MVNO) and reseller service offerings further increases the competitive wireless options available to Canadians. There are now more than 18.5 million wireless phone subscribers in Canada. On a per capita basis, Canadians are the 5th highest users of wireless services in the Organization for Economic Cooperation and Development (OECD)¹ and they have the 2nd highest minutes of use per month in the OECD. Wireless per minute rates in Canada are consistently lower than the average for all of the OECD countries. These relative rankings are a tribute to the quality, affordability and availability of wireless services in Canada and they demonstrate that Canada, from a wireless infrastructure perspective, is well positioned for success in the global economy.

Mobile-satellite networks also provide an essential component of the Canadian telecommunications infrastructure, over the remaining 7.2 million square kilometres of Canada to the remaining 2 % or over 600,000 Canadians in the more remote parts of Canada. Given that mobile-satellite networks provide essential communications to those people over 85 % of the Canadian land mass, it is important in consideration of DGTP-002-07 that the adjacent-band frequency sharing in the bands around 2 GHz and 1670 MHz between terrestrial mobile and mobile-satellite systems be such that each service be

¹ An Examination of Issues raised in the Telecommunications Policy Review Panel's March 2006 Report regarding the Canadian Mobile Wireless Services Industry, *Wall Communications Inc., September 29, 2006, p.18.*

able to function and to grow in harmony so that citizens in all parts of Canada have access to state-of-the-art telecommunications services.

Mobile-satellite systems may be the only telecommunications infrastructure available in distress instances, in situations where terrestrial infrastructure is rendered inoperable by the cause of the distress. This was the case, for example, in the New Orleans hurricane and flooding in 2005. Spectrum policy decisions that result in a reduction in the capabilities of mobile-satellite networks could put at risk the ability to respond to situations of distress and national security.

The Department should note that the RABC was unable to reach full consensus amongst participants in drafting this submission. In particular, MTS Allstream disagrees with elements of the RABC's overall commentary as well as with respect to specific recommendations. Individual members of RABC will of course be filing their own comments in response to this Consultation Paper.

For ease of reference this response uses the section numbering system contained in the Consultation paper.

Part I: Provision for the Allocation and Utilization of the Various Bands to be Auctioned

Section 1.1 Discussion of the Changes to the Canadian Table of Frequency Ranges 1710-1850 MHz and 2110-2200 MHz

The RABC supports the proposed changes to the Canadian Table of Frequency Allocations. In particular, we support the reservation contained in new footnote C37 for possible future AWS use. Mobile services providers will be able to put this spectrum to use in the introduction of new services including fixed and mobile broadband wireless services.

Section 2.1 Spectrum Utilization – Bands 1710-1755 MHz and 2110-2155 MHz

The RABC supports the release of the 90 MHz AWS band, which is aligned with the FCC AWS allocation.

Section 2.2 Spectrum Utilization – Bands 1910-1920 and 1990-2000 MHz

The RABC supports making available the lower half of this band and consulting further on the upper half.

Section 2.3 Spectrum Utilization – Bands 2020-2025 MHz and 2155-2180 MHz

The RABC supports the use of new footnote C37.

Section 2.4 Spectrum Utilization – Bands 1670-1675 MHz

The Board agrees that footnote C31A is no longer required and should be suppressed.

Section 3 Treatment of Incumbent Licensees

The RABC supports the proposed minimum 1-year notification period for displacement of fixed station frequency assignments along major highway corridors or in urban areas with populations of 25,000 or more and the 2-year notification period for displacement for all other fixed station frequency assignments. We also support the concept that by mutual agreement earlier displacement can be accommodated.

Part II: Further Consultation on the Auction

General

In general the RABC supports a market driven approach where auctioning is used to allocate spectrum. Spectrum should be made available, on the same basis, to all eligible participants in the upcoming auction. We oppose any measures which are an attempt to ensure entry of new players to the wireless market, especially when such measures will distort the market. The Department adopted the use of auctions to ensure that spectrum was assigned to those that value it most and hence would put it to its most productive use. This can only be realized through the application of an unfettered auction process. Based on experience in other jurisdictions², it is debatable whether measures such as setting spectrum aside for new entrants, spectrum aggregation limits for incumbents and mandated roaming can achieve long-term sustainable new competition in the Canadian marketplace. These measures will likely serve only to distort the market and delay the introduction of new wireless technologies and services throughout Canada.

While barriers to entry in any mature industry exist, we do not believe these can be easily overcome through facilitating measures as raised in the Consultation Paper.

Section 2.1 Telecommunications Objectives

The RABC believes mobile services providers will be able to put this AWS spectrum to use in the introduction of new services including fixed and mobile broadband wireless services.

Section 2.3 Competition Principles – Spectrum Aggregation Limits

The Board does not support a general spectrum cap for the wireless industry in Canada. In Gazette Notice No. DGTP-010-04, “Decision to Rescind the Mobile Spectrum Cap Policy”, the Department stated that

“As more spectrum becomes available, a spectrum cap policy to oversee spectrum concentration becomes less relevant.”

² The Board notes that set-asides were used in both the US and UK spectrum auctions in the 1994 and 2000 timeframes respectively. The Board notes that, as a result of significant difficulties encountered with the application of such measures, neither the US nor the UK have used or are proposing to use set-asides in the recent or current licensing processes. As a result of Congressional legislation the US does use a system of Designated Entity (DE) bidding credits for specific minority groups and very small businesses. The Board also understands that the DE mechanism has also been fraught with difficulties and has not achieved the policy objectives which Congress had intended.

We support the Department's conclusions in that regard.

Further, with regard to the possible use of spectrum aggregation limits, the RABC notes that some of the newer technologies, which may be used in this band, may have requirements for broad RF channel bandwidths (e.g. 20 MHz of contiguous spectrum) and this may impact (or be impacted by) the application of such limits.

Any growth of one telecommunications service should not be at the expense of another active telecommunications service. In this instance the increase in the use of spectrum by the mobile service should not be at the expense of a reduction in the availability of the mobile-satellite service, in part for the reasons outlined in the Introduction and in Section 4.5 below.

Section 2.7 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.

As discussed above, the Board does not believe in the need for measures intended to enable market entry in the AWS spectrum auction.

Section 2.7.1 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.

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.

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

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

As we discuss earlier, we are opposed to setting aside spectrum for new entrants. We do not believe that allocating spectrum for new entrants in the market is in the public interest. Such measures have previously been tried by other Administrations including the U.K. and the U.S. These measures have not worked and in some cases have led to post-auction problems and abuse. The approach has for the most part been abandoned.

Section 2.7.2 Spectrum Aggregation Limit on Auctioned Spectrum

As noted above, we believe market forces should be allowed to function in the allocation of spectrum through an unfettered auction process without arbitrary limits being imposed. However, in the event Industry Canada elects to intervene in the market, the RABC believes that an AWS auction spectrum aggregation limit is less harmful than other options. If aggregation limits are imposed, they should be applied equally to all participants and as such would at least be fair to everyone.

As noted above with regard to the possible use of spectrum aggregation limits, the RABC notes that some of the newer technologies, which may be used in this band, may have requirements for broad RF channel bandwidths (e.g. 20 MHz of contiguous spectrum) and this may impact (or be impacted by) the application of such limits. Should the Department determine that an AWS auction spectrum aggregation limit is required, the Board recommends that it be set at a minimum of 15+15 MHz.

Section 3. 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.

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

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

Again, we support a market-driven approach to the implementation of AWS services in Canada. We suggest that mandating incumbent mobile wireless operators to offer roaming services is an unwarranted intrusion into this market, and is hostile to the principle of building out competitive networks. For example, it would hardly be fair for a new entrant to buy a licence for a small area and expect mandatory roaming rights across large metropolitan centres or the entire country. In its policy decision under DGTP-006-

05, the Department avoided any mandated roaming in regard to rural wireless carriers and instead “encouraged regional and national cellular/PCS carriers to provide special consideration, such as the provision of digital roaming arrangements, to non-competing rural wireless carriers to integrate their services”.

Further, the Consultation Paper seems to imply that roaming across the different wireless platforms and technologies is now commonplace. Clearly this is not the case as not everyone can roam on each others networks for technical reasons.

Any successful roaming arrangement implies both that an intercarrier service agreement is in place and that the subscriber terminal is physically capable (frequency and air-interface technology) of communicating with the “visited” carrier network. The RABC believes that any mandated roaming should not require a carrier to deploy a technology, which it did not intend to deploy for normal business reasons.

The Board also notes that a mandated roaming requirement could lead to other market distortions such as potential new entrants using such a policy to delay building out their spectrum, relying instead on the use of the “mandated roaming” policy to serve their customers and to avoid or reduce the need to invest capital in the construction of a facilities-based network.

The Board also notes that, to the best of its knowledge, no jurisdiction in the G8 group of countries requires the form of mandated roaming that is contemplated in the Consultation Paper.

In any event, Canadian incumbent licensees have entered into voluntary commercial automatic roaming arrangements with new entrants and, in some cases, with each other, absent any requirement to do so. For example, in 1995 while the Department required, as a condition of licence, that incumbent cellular licensees must offer analog cellular roaming to new entrant PCS licensees, it did not require the incumbents to offer automatic roaming. Nevertheless, incumbent cellular licensees offered and provided automatic roaming for new entrant PCS licensees. Further, from the outset of cellular services, the B band licensees (those cellular carriers affiliated with the incumbent telephone companies) entered into roaming arrangements and voluntarily evolved those arrangements to provide for automatic roaming once the technical capability of doing so was available. Similarly, while the US Federal Communications Commission (FCC) has mandated that certain licensees must provide manual roaming, it has not expanded this requirement to provide for automatic roaming, despite the fact that it has periodically reviewed this requirement from time to time, and as recently as 2006. Nevertheless, US licensees have voluntarily entered into commercial roaming arrangements that provide for automatic roaming. Clearly, the market for roaming has not failed and there is no need for the Department to impose any unnecessary and artificial measures to address this service.

Section 4.1 Spectrum Bands

Section 4.1.1 The Bands 1710-1755 MHz and 2110-2155 MHz

Comments are sought by the Department as to whether:

- 1. the band plan shown in Figure 1 should be adopted in Canada — if not, please provide specific alternative options and the rationale justifying your suggestion;*
- 2. the Department should allow TDD operation in these sub-bands if they meet the conditions listed above — if not, please provide the rationale supporting your view.*

The Board recommends the band plan be harmonized with that of the U.S. Harmonization of sub-band plans with the US will simplify coordination between operators at the US/Canada border.

The Consultation paper notes that, in response to the 2003 AWS consultation:

Harmonization with the US has long been a practice of the Department and has been proven to be in the best interests of Canada. Harmonization facilitates cross-boarder roaming, border coordination and will reduce the potential base station complexity which would result from the adoption of the Department's proposed band plan. This potential complexity arises due to the fact that equipment vendors' design efforts tends to focus on the parameters of global markets rather than the relatively small Canadian market.

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.

If permitted, the RABC believes that time domain multiplexing (TDD) operation should be consistent with the technical rules for frequency domain multiplexing (FDD) deployment including the use of lower transmit power limits in the lower band as this will reduce the possibility of interference between operators. As such, the proponents of TDD should conclusively demonstrate that such technologies could be used in these bands or some segments of these bands without causing interference to other spectrum users. Cross border coordination may be more complex since TDD operation is not permitted in the US.

Section 4.1.2 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.

The FCC released this band as a 5 MHz block in the U.S. In general we support the band plan proposal.

In response to DGTP-004-05, CWTA stated:

“In the alternative, if the Department elects to move forward with the designation and licensing of the band 1670-1675 MHz, then CWTA believes that the Department should seriously consider licensing the band to a single consortium of service providers. Taking this action would only help the viability of a service offering in this band by ensuring that a number of service providers and their respective customers would have access to the service. This approach would also overcome the significant practical drawback that the band is not large enough to divide and license to multiple licensees.”

The RABC agrees with the CWTA’s comments and submits that the Department should consider licensing the band to a single consortium of service providers. This may require the Department to allow joint or related party bidding on these licences separate from the other licences in the auction.

Section 4.1.3 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 option 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.*

The RABC believes that the proposed band plan is appropriate and that the appropriate technical considerations within RSS and SRSP must be chosen carefully so that the out-of-band interference levels of systems of both the mobile and the mobile-satellite services near 1995 MHz are such that both types of network may operate without undue levels of interference.

Section 4.2.1 AWS Service Areas, 1710-1755 MHz and 2110-2155 MHz

Block Licenses	Pairing	Amount of	Proposed Tiers	Number of
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		Spectrum		Licenses
A	1710-1715 MHz and 2110-2115 MHz	2 x 5 MHz	4	172
B	1715-1720 MHz and 2115-2120 MHz	2 x 5 MHz	4	172
C	1720-1730 MHz and 2120-2130	2 x 10 MHz	3	59
D	1730-1740 MHz and 2130-2140 MHz	2 x 10 MHz	3	59
E	1740-1755 MHz and 2140-2155 MHz	2 x 15 MHz	2	14

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.

The Board does not support the proposed tier sizes for the AWS spectrum. In the Board's view the adoption of tier 3 and 4 services areas are too granular and will make the implementation of the spectrum cumbersome. The Department notes that the AWS spectrum should accommodate high-speed mobile applications. In the Board's view this can best be accomplished by employing tier sizes which facilitate the deployment of wide area systems for both new service plans or the extension of capacity while at the same time simplifying coordination requirements. The licensing and implementation of wide area systems is consistent with the mobile allocation associated with the AWS spectrum bands. While the Board's preference would be for licensing of the AWS spectrum on a national basis, at a minimum the Board recommends the use of tier 2 service areas for the deployment of the AWS spectrum.

Section 4.2.2 PCS Expansion Service Areas, 1910-1915 MHz and 1990-1995 MHz

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

RABC agrees with the proposal on the condition that acceptable out-of-band interference limits can be agreed upon between the mobile service and the mobile-satellite service.

Section 4.2.3 1670-1675 MHz Service Areas

Comments are sought on the proposal of Tier 2 service areas

RABC agrees with the proposal noting the out-of-band sharing issues discussed in Section 4.5.

Section 4.3 Co-channel / Adjacent Area Coordination

The RABC believes that the proposed process and criteria is appropriate and that the existing RSS and SRSP standards are applicable. 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.

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.

Section 4.4 Adjacent Channel/Same Area Coordination

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

The RABC believes that the coordination rules similar to the current PCS rules should be followed.

Section 4.5 Sharing Issues with Other Services

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

The RABC notes that there are potential sharing issues at 1670 MHz and 2.0 GHz band edges. The RABC wishes to comment here on the adjacent-channel sharing or sharing in closely-separated bands between terrestrial systems and mobile-satellite systems at those band edges. The RABC recognizes that in frequency sharing of this type there is likely to be mobile or base-station transmitting stations and mobile-satellite receiving stations, or visa versa. Next- generation Canadian geostationary mobile-satellite systems are being implemented with high gain satellite spot beams. In these systems there is concern in MSS Earth-to-space bands that the aggregate power from these terrestrial transmitters towards the satellite may overload/desensitize the satellite receiver and its 1st stage frequency converter. This is a concern in bands adjacent to or near mobile-satellite band edges at 1660.5 MHz, 2000 MHz, and possibly in the future at 2020 MHz. Satellites of different Canadian operators at both 1660.5 MHz and at 2 GHz are well into the construction phase of their new systems, and the design of those systems did not anticipate such high aggregate power transmissions in the adjacent band from these terrestrial systems. The aggregate EIRP levels of these terrestrial base stations toward these satellites should be carefully

reviewed by the Department in the development of appropriate SRSP's and RSS's for these bands.

There is also a concern about interference from AWS transmitters into MSS receiving user terminals adjacent to or near MSS space-to-Earth bands. The AWS transmitters and MSS receiving user terminals may operate in the same service area. Further, the MSS user terminal is always near its maximum 37,000 km to 40,000 km operating range, and so must always operate with very low power levels from the transmitting space station. However, the interfering terrestrial transmitter may be much closer than the maximum range from the MSS user terminal, resulting in high interference levels. This may occur in the future adjacent to or near 2180 MHz. This out-of-band interference problem should be carefully reviewed by the Department in the development of an appropriate SRSP and RSS for this band.

Section 4.6 Equipment Certification

The RABC believes that it will be crucial that relevant certification specification documents be closed by the time that auctions occur i.e. before deployment and detailed planning commences.

Section 5.1 Licensing Process - General

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 is 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, the Board 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.** (Emphasis added)

Further, in the Department's *Questions and Answers – Framework for Spectrum Auctions in Canada* (<http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/sf01854e.html>) 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. (Emphasis added)

The Board 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. The Board also 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)

Whereas the Framework and Questions and Answers (Q&A) document recognizes the need for business certainty and a stable investment climate, the proposed words instead send a message of uncertainty which could, in the Board’s view, destabilize the investment climate in the industry. Such a result would not, the Board believes, be in the best interests of the licensees, their customers or Canada in general.

Compounding this uncertainty even further is the proposed language under Section 5.4 in the consultation, Conditions of Licence, regarding licence term. In the Framework and Q&A document 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 this [initial] term, and any subsequent terms, **the licensee may apply** for licence renewal for an additional licence term of up to 10 years . . .” (Emphasis added)

In addition to the investment uncertainty which would be created by the proposed licence term, the Board 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, in the normal course of events, such a requirement does not exist today.

Recommendation

As a result, the Board strongly recommends the following. In the interests of maintaining and increasing business certainty the term for the licences subject to this consultation should be set at a minimum of 15 years for the initial and subsequent terms. The Board notes that this would harmonize with the U.S. terms for these licences and would enhance the investment climate in the Canadian wireless sector. The Board also strongly recommends that the original concept of a “high expectation of renewal” at the end of the initial term be retained for the licences issued as a result of this consultation. The Board proposes that in this event, the onus would again be on the Department to initiate a consultation if it anticipates non-renewal, a change in applicable conditions of licence or the imposition of post-initial term licence fees.

Section 5.3 License Term, Renewal and Implementation Requirements

Comments are sought on the license term, implementation and renewal proposals.

Specifically, comment is sought on:

- the proposal to use a 10-year license 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 license 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).*

The Board notes that the same spectrum auctioned by the FCC in the U.S. carries a 15-year licence term and recommends that Canada adopts a similar term. The Board also understands that the UK’s Ofcom has used or is considering the use of 20-year licence terms.

As previously noted, the Board supports a market-driven approach to licensing when using auctions. As such we do not support implementation requirements for licensees, especially given that their use of this spectrum will be dictated by their ongoing capacity requirements related to subscriber growth, usage growth and the implementation of future generation services, including mobile broadband services. On the other hand, any new entrants should be required to adhere to minimum implementation requirements as the incumbents were in the 1985 and 1995 licensing processes, to ensure that they will invest in the development of their own facilities-based networks. This is particularly important

if the Department elects to use a spectrum set-aside for new entrants since, without any obligation to build their own networks, new entrant licensees will have an incentive to simply sell their licence rights and realize a windfall at the expense of Canadian taxpayers who are entitled to the proceeds associated with the fair market value of the spectrum. The Department's final policy must prevent this kind of speculation.

Section 5.4 Conditions of License

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

- Licence Term

The Board notes that the same spectrum auctioned by the FCC in the U.S. carries a 15-year licence term and the U.K. is contemplating a 20-year term. In light of this, the Board recommends that a term longer than the proposed 10 years be considered. This would increase operator confidence and result in increased investment in the use and build out of the spectrum.

- Licence Transferability and Divisibility

Transfers between incumbent licensees should not require approval by Industry Canada. Notification of such transfer should be adequate.

The RABC 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 incumbent licensees however the RABC proposes that such transactions should be subject to a Departmental notification requirement, rather than a Departmental approval requirement. Incumbent 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 applicable licence.

The RABC further proposes that a transfer, in whole or in part, involving a non-incumbent licensee would continue to require Departmental approval for each such transfer. The RABC submits that the non-incumbent transferee(s) should continue to be required to provide an attestation and other supporting documentation demonstrating that it meets the eligibility criteria and all other conditions, technical or otherwise, of the licence.

If any spectrum allocated as part of a "new entrant spectrum set-aside" is to be transferred in whole or in part, then, as noted above, provisions are required to prevent new entrant licensees from realizing a significant windfall from the transfer, at the expense of Canadian taxpayers. For example, new entrants should be required to return to the Department any subsidy that may arise from the Department's use of a set-aside, if they transfer their spectrum licence rights during the term of the licence, especially if the licensee has not satisfied its rollout requirements.

Radio Station Installations

The Board 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.

Concerning radio towers, consistent with the Board's submission to the National Antenna Tower consultation, the Board does not believe that there is a need for government intrusion, in the form of introducing a requirement for mandated tower sharing, in the Canadian wireless market. Such a complex technical matter is best left to the parties to address, as they do today, through private commercial negotiations. The Board believes that any attempt by government to "fix" something which is essentially not broken will only result in doing more harm than good. Further, the Board believes that mandatory tower sharing is impractical, given that sharing can only be determined on a case by case basis, taking a number of variables into account.

- Research and Development (R&D)

The consultation 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.

The Board notes the comments of an October 26, 2005 regulatory experts panel, before the Telecommunications Policy Review (TPR) Panel. The regulatory experts panel, which included a former Canadian Minister of Industry, a former Vice-Chair Telecom of the Canadian Radio-television and Telecommunications Commission (CRTC) as well as representatives of the U.K. regulator Ofcom and the Australian regulator, ACMA. When questioned concerning the application of the 2% R&D requirement, as a condition of licence, the panelists 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. Even the former Canadian Minister of Industry observed that while such provisions may have been legitimate in the early days of the industry, they were not appropriate in mature industries. To the Board's knowledge, no other regulator applies such a condition of licence.

Recommendation

The Board therefore recommends that the 2% R&D requirement be dropped from the proposed conditions of licence. In the event that the Department elects to impose the 2% R&D requirement, then the Board recommends that the requirement should be averaged over the term of the licence, and not over 5 years, as proposed in the consultation paper.

Section 5.5 Post-auction Licensing Process

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

The Board agrees with making unassigned licences available for licensing through an alternative process, which could include a re-auction, at a later date following the close of the initial auction.

Section 6.2 Pre-Auction Deposits

The Department seeks comments on the opening bids and pre-auction deposits for AWS licenses.

The Board has no comments in regard to pre-auction deposits.

Section 6.3 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. The RABC supports these proposals.

The Department also proposes, in 6.3, 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.

The RABC notes that experience in 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. The RABC notes one rationale for the Department's adoption of spectrum auctions in Canada was to increase the timeliness of the delivery of spectrum into the market place. The RABC 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.

The RABC would suggest, 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*. The RABC supports this position.