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Dawn Hunt

Vice-President
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Mr. Leonard St-Aubin
Director General - Telecommunications Policy Branch
Industry Canada
1604A
300 Slater Street - 16th Floor
Ottawa ON K1A 0C8

EMAILED TO: wireless@ic.gc.ca

Dear Mr. St-Aubin,

**Re: Comments - *Canada Gazette* Part I Notice: DGTP-006-06
Proposed Spectrum Utilization Policy, Technical and Licensing
Requirements for Wireless Broadband Services (WBS) in the
Band 3650-3700 MHz**

Pursuant to the procedures provided in *Canada Gazette*, Part I, Notice DGTP-006-06 (the Notice), dated August 2006, Rogers Wireless Partnership (Rogers) is pleased to file the following comments.

In the Notice, the Department has proposed the spectrum policy, technical and licensing provisions to accommodate new Wireless Broadband Services (WBS) in the band 3650-3700 MHz (the Band). The Department has also stated that it is making a primary allocation to the mobile service in the Band to support WBS.

U.S. Status

In the Notice the Department has noted that the US Federal Communications Commission (FCC) has adopted rules to open access to new spectrum for WBS in the band 3650-3700 MHz. The Department has further noted that the FCC has adopted a hybrid approach that draws from its unlicensed and licensed regulatory models and provides for nationwide, non-exclusive licensing of terrestrial operations

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in the band, utilizing technologies employing contention-based protocols. The FCC has also grandfathered previously licensed primary incumbent Fixed-Satellite Service (FSS) earth station operations and three Federal Government radiolocation stations, entitling them to interference protection from new wireless services. The FCC has determined that new FSS stations will be permitted on a secondary basis. Lastly, the Department has noted that the FCC licensing scheme, particularly non-exclusive licensing and the requirement to employ contention-based protocols, are currently the subject of a number of Petitions for Reconsideration. Some parties favour exclusive licensing while others favour non-exclusive licensing. Clearly, the final outcome of these petitions will determine the extent to which contention-based protocols will be developed and incorporated by vendors into technologies that will be used in the Band.

The FCC has also been petitioned to decrease the permitted in-band power levels and to tighten adjacent band emission limits to better protect FSS earth stations operating in the band above 3700 MHz.

In light of the current level of uncertainty in the US regarding the licensing scheme for the band 3650-3700 MHz, Rogers believes that it is premature to define the spectrum utilization policy, technical and licensing requirements for this band in Canada. Rogers believes that the licensing and utilization of this band in Canada should be harmonized with the US, and it will be difficult, if not impossible, to do so until the US FCC has made a final determination with respect to the significant issues that are currently under dispute.

Notwithstanding the above, Rogers provides the following comments regarding certain issues and proposals that are outlined in the Notice.

Licensing Approach

Rogers supports the proposed use of a spectrum licensing approach for the Band. However, Rogers notes that the conditions of licence that are contained in Appendix A of the Notice are incomplete.

Specifically, Rogers notes that the proposed licence conditions do not include two conditions that the Department has imposed for other recently licensed bands that have been allocated for Fixed and/or Mobile services. Rogers recommends that the Department add a condition of licence regarding research and development and a condition regarding the implementation of spectrum usage, consistent with the manner in which these two conditions have been defined for other bands and services, such as, for example, the 2.3 GHz (WCS) band and the 3.5 GHz (FWA) band. Rogers believes that this is particularly important if the Band or any part thereof will be licensed on an exclusive basis.

Service Areas

Rogers supports the proposed use of Tier 4 service areas for the licensing of the Band and notes that this approach is consistent with the licensing of other bands where a spectrum licensing approach has been employed.

Spectrum Structure and Licensing

The Department has noted that the Band could be structured in the form of a single 50 MHz block or as two 25 MHz blocks. The Department has proposed the following licensing scenarios for this band:

1. An exclusive spectrum licence for the Band in each geographical area.
Spectrum would be licensed using an auction process.

2. Non-exclusive licences for multiple licensees in the Band in each geographical area. Spectrum would be licensed on a first-come, first-served (FCFS) basis.
3. An exclusive spectrum licence for the Band in urban areas. Non-exclusive spectrum licences for the Band in rural areas. Spectrum would be licensed using an auction process for exclusive licences and on a FCFS basis in rural areas.

The Department has also proposed the use of contention-based protocols in the case where spectrum will be licensed on a non-exclusive basis.

Rogers recommends that the Department license the Band on the following basis. One 25 MHz block should be licensed on an exclusive basis, and one 25 MHz block should be licensed on a non-exclusive basis, in each geographic area. Rogers notes that this approach will ensure that WBS spectrum will be available on an exclusive and non-exclusive basis in each geographic area, meaning that potential licensees will be provided with an equal opportunity to be licensed in the Band on the basis of their preferred licensing approach.

Rogers supports the use of contention-based protocols for spectrum that is licensed on a non-exclusive basis. Rogers notes, however, that the viability of contention-based protocols will depend on the final determinations of the US FCC regarding the Band and the extent to which such protocols will be supported by industry standards and technology vendors.

Rogers is opposed to the licensing of a single 50 MHz block since this approach would negate the extent to which the band will be licensed to multiple licensees in a given geographic area and it will create an artificial scarcity of spectrum. In any event, there is no technical requirement for the use of a single 50 MHz block.

Contention-based Protocols

Rogers supports the adoption of the US FCC definition for contention-based protocols since this will ensure that industry standards and technologies that are developed for the US will be suitable for use in the Band in Canada. This will ensure that Canadians will have access to high quality technology and services that are affordable and widely available.

Licence Term

Rogers supports the proposal that licences for spectrum in the Band will be issued for a ten-year term with licence fees payable by March 31st of each year.

Although the US FCC has recently issued spectrum licences with terms of fifteen years, Rogers notes that the FCC will use ten-year terms for the Band. Rogers understands that the use of fifteen-year terms in the US is limited to one particular situation where it will take several years to transition incumbent licensees out of the band in question. Since this will not be the case with respect to the Band, the use of fifteen year terms is not warranted.

Licence Fees

The Department has proposed that spectrum that is licensed on an exclusive basis will likely be licensed using a spectrum auction and that fees will be established by the auction results. Rogers supports this approach.

For spectrum that is licensed on a non-exclusive basis, the Department has proposed a fee of \$0.0042 per 50 MHz per population which is the same as the fee that the Department will use for the licensing of the 4940-4990 MHz band for public safety services. The Department has also proposed a minimum fee of \$250 which it

states is reflective of the actual costs for the processing and maintenance of licences.

While the proposed fee is significantly lower than the fees that are paid for Cellular, Personal Communications Services (PCS), Multipoint Communications Systems (MCS), Fixed Wireless Access (FWA) and Wireless Communications Services (WCS) spectrum, the Department has stated that it believes that a significantly lower fee is warranted if the spectrum is licensed on a non-exclusive basis. While Rogers agrees in principle with the notion of a lower fee for a non-exclusive licence, it reserves comment regarding the extent to which the level of the proposed fee is justified. Rogers notes in this regard that, on October 20, 2006, the Department released a consultation paper regarding the proposed \$0.0042 fee for the 4.9 GHz broadband public safety band.¹

Eligibility

Rogers supports the eligibility provisions proposed by the Department, in particular, those that pertain to licensees that will operate as radiocommunication carriers.

Spectrum Aggregation Limits

Rogers does not believe that in-band or out-of-band spectrum aggregation limits are warranted for the Band at this time, irrespective of whether the spectrum is licensed as a single block of 50 MHz or in the form of two blocks. As the Department has noted, the US FCC has not imposed a spectrum aggregation limit for the Band.

Rogers understands that certain parties may advocate the use of a spectrum aggregation limit for the Band. Rogers believes that any such proposal is

¹ Gazette Notice No. DGRB-002-06 — *Spectrum Licence Fees for Broadband Public Safety in the Band 4940-4990 MHz*

transparently an attempt by certain parties to preclude the participation of certain other parties in any spectrum auction that the Department will employ for the licensing of spectrum in the Band. The clear objective of these parties is to reduce the extent of competition within the spectrum auction, to reduce the level of auction fees that are paid, and to monopolize the use of the Band to the greatest extent possible. For these reasons, Rogers recommends that the Department not impose a spectrum aggregation limit in any form for the Band.

In any event, Rogers notes that the Fixed Wireless Access (FWA) band, for example, which is situated just below the Band, does not have a mobile allocation. Rogers believes that it would not be appropriate to impose a spectrum aggregation limit for a band with a mobile allocation, while taking into consideration spectrum that has been licensed in another band that does not have a mobile allocation. An aggregation limit that is calculated by totalling the licensed spectrum in bands with different allocations would be entirely unjustified.

Technical Considerations

The Department has proposed a number of in-band and out-of-band technical provisions and, in particular, has sought comments regarding whether the proposed out-of-band emission limits will provide sufficient protection to services operating in adjacent spectrum, including FSS earth stations operating in the band 3700-4200 MHz.

Rogers supports the comments filed by the Radio Advisory Board of Canada (RABC) in this regard. Rogers also recommends that any technical limits that are developed in a future Radio Standards Specification (RSS) and/or Standard Radio Systems Plan (SRSP) in consultation with the RABC must also ensure that WBS systems will not be permitted to impose interference on services operating below 3650 MHz. Any guard band that may be necessary to avoid any such potential

interference into services operating below 3650 MHz must be derived from spectrum in the Band.

Rogers appreciates this opportunity to provide its comments to the Department. Please do not hesitate to contact the undersigned if you have any questions regarding our position.

Regards,

A handwritten signature in black ink, appearing to read 'Dawn Hunt', with a stylized, cursive script.

Dawn Hunt
DH/jt