



4809 Wilson Ave. Montréal  
Québec Canada H3X 3P3  
Telephone: (514) 484-5625  
Facsimile: (514) 484-9649  
Comments@wispra.com

**Wispra Inc.**  
**Reply Comments in Response**  
to the  
**Consultation on 24 and 38 GHz**

**Reference Numbers**  
**DGRB-003-98**  
**DGRB-002-98**

**Submitted to Industry Canada**  
[24ghz.38ghz@ic.gc.ca](mailto:24ghz.38ghz@ic.gc.ca)  
**December 4, 1998**

## SUMMARY

The following is a summary of Reply Comments in Response to the Consultation on the 24 and 38 GHz Frequency Bands submitted by Wispra Inc., a private Canadian company founded to provide broadband wireless services.

Wispra supports the following:

- Opening up the 24 and 38 GHz bands and aligning them with the United States
- Auctions as the most expeditious way to license the frequencies
- Bidding credits to enable Small and Medium Enterprises (“SMEs”) to participate in the auctions
- Making ILECs and CATV operators ineligible for licensees in their serving territories to allow a competitive market place
- 700 MHz spectrum cap for the combined 24, 28 (LMCS), and 38 GHz bands.
- licensing the 59 Tier 3 service areas
- packaging spectrum into blocks of 400 MHz at 24 GHz and 400, 300 and 200 MHz at 38 GHz.
- A 10 year license term with a high expectation of renewal
- Allowing transfer and division of licenses after three years
- Setting service implementation requirements measured after three years
- Standard conditions of license: Canadian ownership, 2% R&D, etc.
- Applying wiretapping standards equally to all carriers
- Technical considerations based on RABC input
- The proposed auction process and design with the recommended modifications
- The proposed financial aspects of the auction: reserve prices, deposits, bid payments, etc.
- Maintaining the shared point-to-point 38 GHz allocation at five channels
- Starting the auction in 2Q1999

Support for these positions is provided in the Reply document.

Wispra’s key positions are: aligning bands with the United States, expeditious licensing, bidding credits, ineligibility of ILECs and CATV operators and the spectrum cap.

# TABLE OF CONTENTS

Summary .....	i
1. Introduction .....	1
1.1 Response .....	1
1.2 Wispra .....	1
2. Background.....	2
2.1 Spectrum Developments.....	2
2.2 Auction Process .....	2
2.3 Bidding Credits .....	3
3. Spectrum Policy Issues .....	7
3.1 Frequency Band Structure .....	7
3.1.1 The 24 GHz Band.....	7
3.1.2 The 38 GHz Band.....	7
3.2 Allocation Issues.....	7
3.3 Eligibility.....	8
3.3.1 General Principles .....	8
3.3.2 Eligibility Requirements.....	8
4. Definition of Licenses .....	14
4.1 Spectrum Licenses.....	14
4.2 Service Areas .....	14
4.3 Packages .....	14
4.4 License Term/Renewal Expectancy.....	14
4.5 Transfer and Division of Licenses & Flexibility of Use .....	15
4.6 Implementation of Services .....	16
4.7 Conditions of License .....	17
5. Technical Considerations.....	19
5.1 Boundary Conditions .....	19
5.2 Block Area Implementation .....	19
5.3 Communication Between Licensees .....	19
5.4 Interference Considerations .....	19
5.5 Type Approval .....	19
5.6 Sharing Issues at 24 GHz .....	20
5.7 International Coordination .....	20
6. Licensing Process .....	21
6.1 Proposed Auction Process .....	21
6.2 Auction Design .....	21
7. Financial Aspects of the Auction .....	22
7.1 Reserve Prices .....	22
7.2 Pre-Auction Deposits.....	22
7.3 Bid Payment.....	22
Appendix A.....	23

# 1. INTRODUCTION

## 1.1 RESPONSE

Wispra Inc. (“Wispra”) hereby submits to Industry Canada its response (the “Reply”) to the following documents:

- “Consultation on the 24 and 38 GHz Frequency Bands: Proposed Policy and Licensing Procedures” August 1998, Canada Gazette Notice No. DGRB-003-98, (the “Consultation”), and
- “Framework for Spectrum Auctions In Canada,” August 1998, Canada Gazette Notice No. DGRB-002-98 (the “Framework”)

The Reply is presented using the same structure as the Consultation. Wispra has added a section 2.3 to the Reply on Bidding Credits, a topic not considered in the Consultation.

Wispra requests that the Reply be considered as applicable to both the Consultation and the Framework.

## 1.2 WISPRA

Wispra Inc. is a Canadian owned and controlled private company founded in 1997 to provide broadband wireless communications services in Canada using point-to-point and point-to-multipoint radio systems.

Wispra Tel Co. Ltd. (Wispra Tel), a wholly owned subsidiary of Wispra Inc., is licensed to operate point-to-point radio systems in the 38 GHz band in major metropolitan areas in Canada. Wispra Tel is registered with the Canadian Radio-television Telecommunications Commission (CRTC) as a Competitive Local Exchange Carrier (CLEC).

Wispra applied in December 1997 for radio licenses in the 24 GHz band to provide point-to-multipoint broadband communications services in Canada. Wispra considers that its application may have contributed to the proposal by Industry Canada to issue licenses for multipoint systems at 24 and 38 GHz.

Wispra fully supports the Government of Canada’s objective of “making Canada the most connected nation in the world by the year 2000” and submits that “providing timely and efficient access to spectrum” is an effective way to do so.

Wispra commends the Minister for his announcement on June 1, 1998, “recognizing that microwave broadband wireless communications is emerging as a potential competitive service offering to connect Canadians, [and announcing] that Industry Canada is launching a spectrum licensing process for the 24 GHz and 38 GHz microwave bands.”

## 2. BACKGROUND

### 2.1 SPECTRUM DEVELOPMENTS

Wispra fully supports the proposal of Industry Canada to open the 24 and 38 GHz bands and to align them with the United States. Wispra recommends that other new bands be so aligned wherever possible.

Wispra continues to be concerned that Canada may be missing substantial benefits of licensing new spectrum in Canada as fast as the United States. We have already seen the benefits of Canadian Local Multipoint Communications Services (“LMCS”) licensing being ahead of the equivalent Local Multipoint Distribution Services (“LMDS”) in the United States. Even before the start of commercial services, Newbridge Networks has benefited in international markets from being the primary supplier to the Canadian licensees.

The same benefit to equipment suppliers may not accrue from 24 and 38 GHz licensing since Canada lags the United States by two years or more. However, Wispra considers that the substantial benefits will accrue to Canadians from the increased availability of new broadband communications services. Wispra supports proceeding with the licensing of 24 and 38 GHz as soon as possible.

### 2.2 AUCTION PROCESS

Wispra has expressed its opinion in previous submissions to Industry Canada that licensing using First-Come-First-Served (FCFS) or competitive submissions are better for Canada than auctions.

The United States uses spectrum auctions for reasons that do not apply in Canada. The United States does not have authorization to charge annual license fees for spectrum. It also has a litigious system where the regulator has great difficulty in selecting winners from large volumes of applicants without being sued. In contrast, Canada has a well developed license fee system that generates substantial revenues for the government of Canada. Canadian ownership restrictions limit the number of applicants to a number that can and have been treated successfully by FCFS or competitive submission processes. These processes have served Canada well and should continue to do so.

Notwithstanding the above, Wispra supports proceeding with an auction in this case since it is the fastest track to licensing of 24 and 38 GHz spectrum.

Wispra understands that the auction process proposed by Industry Canada to be modeled after the one used by the Federal Communications Commission (“FCC”) in the United States (with appropriate adjustments to Canadian needs). If we are to have auctions, Wispra supports the use of a process that has been shown to work reasonably well, i.e. one based on the US experience.

## 2.3 BIDDING CREDITS

Wispra requests that Industry Canada include bidding credits for small and medium enterprises (SMEs) in the Canadian spectrum auction process. Wispra was surprised to find that bidding credits had not been considered in the Consultation, especially since they are an integral part of the United States auction process.

On October 26, 1998 the President of Wispra wrote to the Minister of Industry requesting “bidding credits similar to the United States in order that Small and Medium Enterprises (“SMEs”) can participate in the auction process and provide new services.” Wispra received confirmation from Industry Canada on November 30 that the views submitted “will be fully considered as part of this consultation.”

Wispra requests that the letter, included as the next two pages, be considered as an integral part of this submission.



**Joe G. Church**  
**President**                      **Wispra Inc.**  
**4809 Wilson Ave.      Montréal**  
**Québec Canada      H3X 3P3**  
**Telephone:      (514) 484-5625**  
**Facsimile:      (514) 484-9649**  
**Email:      jchurch@wispra.com**

October 26, 1998

Honourable John Manley  
Minister of Industry  
House of Commons  
Ottawa ON

Dear Minister Manley,

I am asking for your help with the proposed new spectrum auctions. I respectfully submit that Canada needs bidding credits similar to the United States in order that Small and Medium Enterprises (SMEs) can participate in the auction process and provide new services.

I commend you for your commitment to making Canada “the most connected nation in the world”<sup>1</sup>. You have committed to making Canada “the virtual lab” that the industry will look to when applying the latest technologies. I believe that SMEs who are active in wireless technology can be major contributors to Canada’s increased connectedness. But to do so we need a radio licensing process that encourages entrepreneurs to pioneer new wireless communications technologies in the face of the many advantages held by large established companies.

You have recognized that “Small and Medium Enterprises (SMEs) are among the key driving forces for [growth] with their ability to adapt, to innovate, to respond quickly to change.”<sup>2</sup> You further recognized that “to take advantage of this opportunity, [SMEs] need governments...to address the special needs and priorities of SMEs.” You undertook to listen to our needs and to “demonstrates [your] commitment to go beyond words to action and to continue this action as the advocate for SMEs.” I am asking for your recognition of SMEs’ special needs in the new spectrum auctions proposed by Industry Canada.

I have been working as an SME for over ten years to provide wireless fixed access services in Canada. I founded LanSer in 1988 to provide fixed wireless Point Of Sale services. LanSer applied for PCS licenses in 1995 in order to provide fixed wireless services to the home, although our confidentiality agreement with AT&T prevented us from disclosing that intention to you.

---

<sup>1</sup> Information Technology & The Knowledge-Based Economy Summit in December 1997

<sup>2</sup> as Chair for the APEC 1997 SME Conference

I founded Wispra in 1997 to provide fixed services using the new broadband wireless technology. We applied in December 1997 for radio licenses in the unused band at 24 GHz. Rather than apply the standard First Come First Served (FCFS) process, Industry Canada has chosen to delay licensing this band until third quarter 1999 and to include it in Canada's first spectrum auction. This delay has adversely affected Wispra's ability as a pioneer "to adapt, to innovate, [and] to respond quickly to change." Including the spectrum in an auction means that we will be bidding for licenses against the largest and richest companies in the country.

Should the Department proceed with the proposed auction, I respectfully request that you "address [our] special needs...as an advocate for SMEs" by implementing bidding credits similar to the United States. The Federal Communications Commission (FCC) has recognized and acted upon the special needs of American SMEs in spectrum auctions by implementing bidding credits for small businesses "to help ensure their opportunity to participate in the auctions process and the provision of [new] offerings."<sup>3</sup>

After trying various arrangements, the FCC has recently created two tiers of bidding credits:

- a twenty-five percent bidding credit for small businesses<sup>4</sup> and
- a thirty-five percent bidding credit for very small businesses<sup>5</sup>

Canada needs to assist small companies to participate in the auctions with bidding credits just like the United States. The Canadian definitions of small and very small businesses might be different<sup>6</sup> but the principle of bidding credits applies equally well in our country.

I am asking you to give consideration to this request. I am confident that this will result in an improved radio licensing process that provides SMEs like Wispra with a fair chance to win radio licenses and contribute to increasing the connectedness of Canadians. Thank you.

Yours truly,



cc: M. Binder

---

<sup>3</sup> FCC FOURTH REPORT AND ORDER Adopted: July 27, 1998 Released: August 19, 1998 Paragraph 45

<sup>4</sup> defined as "an entity that, together with its affiliates and persons or entities that hold interest in such entity and their affiliates, has average annual gross revenues that are not more than forty million dollars for the preceding three years,"

<sup>5</sup> defined as "an entity that, together with its affiliates and persons or entities that hold interest in such entity and their affiliates, has average annual gross revenues that are not more than fifteen million dollars for the preceding three years."

<sup>6</sup> perhaps revenue of say C\$8M and C\$3M or employees of 50 and 20, respectively; see Problems and Opportunities of Small and Medium Size Enterprises in Canada, Association of Provincial Research Organizations, January 1996, for a discussion of Canadian SME definitions.

Wispra understands the reticence of Industry Canada and others to bidding credits or any other arrangement that might cause a situation similar to the United States PCS “C” block auctions where some SMEs bid up the price of licenses unduly and then defaulted on payment. Wispra does not want that to happen in Canada.

The FCC has learned well from their mistakes and has corrected the process. LMCS auctions were their seventeenth. Following are the terms and conditions for bidding credits used successfully in the LMDS auctions in the United States<sup>1</sup>:

“Qualifying LMDS applicants are eligible for bidding credits. The size of an LMDS bidding credit depends on the annual gross revenues of the bidder and its controlling principles and affiliates, as averaged over the preceding three years:

- A bidder with gross annual revenues of not more than \$15 million receives a 45 percent discount on its winning bids for LMDS licenses;
- A bidder with gross annual revenues of more than \$15 million but not more than \$40 million receives a 35 percent discount on its winning bids for LMDS licenses; and
- A bidder with gross annual revenues of more than \$40 million but not more than \$75 million receives a 25 percent discount on its winning bids for LMDS licenses.

Bidding credits are not cumulative: applicants that qualify receive either the 25 percent, the 35 percent, or the 45 percent bidding credit, but not all. The definitions of very small business, small business, and entrepreneur (including calculation of gross annual revenue) are set forth in 47 C.F.R. § 101.1112.

LMDS bidders should note that unjust enrichment provisions apply to winning bidders that use bidding credits and subsequently assign or transfer control of their BTA licenses to an entity not qualifying for the same levels of bidding credits. See 47 C.F.R. §§ 101.1107(e).”

Wispra understands that bidding credits have worked very well in recent US auctions to meet the stated objectives. Wispra submits that similar terms and conditions should apply for bidding credits in Canada for the proposed 24 and 38 GHz auctions.

---

<sup>1</sup> Auction of Local Multipoint Distribution /services, FCC Report No. AUC 97-17-A (Auction No. 17) , paragraph 2. B.

### 3. SPECTRUM POLICY ISSUES

#### 3.1 FREQUENCY BAND STRUCTURE

Wispra supports that frequency bands in Canada align with the USA wherever possible.

Wispra agrees with the Consultation “that the frequency band structure should align as closely as possible with other administrations to ensure the greatest availability of equipment, minimize costly customization requirements and ensure a larger equipment market for our manufacturers.”

Furthermore, alignment ensures that Canadian licensees have greater access to a variety of radio systems faster and at lower prices than Canada-only bands permit. Canadian residential and business consumers benefit from more new services, sooner and at lower cost. It’s a win all around.

##### 3.1.1 THE 24 GHZ BAND

Wispra supports the proposal in section 3.1.1 of the Consultation to allocate the 24 GHz band at 24.25-24.45 GHz and 25.05-25.25 GHz in the same manner as the United States. Wispra proposed this allocation to Industry Canada in December 1997.

##### 3.1.2 THE 38 GHZ BAND

Wispra supports the allocation as described in section 3.1.2 of the Consultation of nine paired channels in the 38 GHz band at 38.6-40.0 GHz in the same manner as the United States.

Wispra does not support increasing in the number of blocks at 38 GHz that do not fully align with the US allocation. Five blocks are assigned and in use by various parties for point-to-point links only on a shared basis. These channels should be retained for such purposes but no additional channels should be so allocated. Carriers who use these point-to-point links for connection to fibre networks and cellular/PCS cell sites have sufficient other point-to-point bands available for their use.

#### 3.2 ALLOCATION ISSUES

Wispra supports changes to the Canadian Table of Frequency Allocations for the 24 GHz band as proposed in section 3.2 giving the fixed service the primary allocation.

As proposed, satellite earth stations operating on a secondary basis should be permitted only if they do not interfere with the fixed systems. Wispra understands that to mean that an in-place earth station that interferes with a new fixed station would be required to cease such interference. If it does not, Wispra proposes that it should.

Wispra considers that a primary allocation for the fixed service is appropriate since licenses for fixed systems will have been purchased at full market value in a competitive auction and paid in advance of use. Satellite operators using such spectrum on a secondary use basis will not have paid full market value nor have paid in advance.

### 3.3 ELIGIBILITY

#### 3.3.1 GENERAL PRINCIPLES

Wispra supports the objectives and general principles relating to eligibility as stated in the Consultation. Wispra submits that their proper application to 24 and 38 GHz licensing requires eligibility restrictions and spectrum caps to be instituted.

The government states as its objective to “promote a competitive post-auction market-place for broadband services.” Wispra supports the government’s position that “disallowing the participation of certain firms in the auction and imposing aggregation limits on the amount of spectrum that any bidder may acquire” is necessary for the development of such a competitive market-place.

Wispra agrees with Principle 1 stated in section 3.3.1 to the effect that an incumbent “should be restricted from holding certain licenses” where:

- (i) it “possesses market power...in telecommunications services in a region covered”;
- (ii) “a new entrant is likely to [compete] with the company’s existing services”;
- (iii) “the anti-competitive effects...are not outweighed by the potential economies of scope”

Wispra also agrees with Principle 2 in section 3.3.1 that when “multiple licenses in a given geographic area are auctioned and...can be used to provide closely substitutable services, limits on the amount of spectrum [licensed to] any single bidder...may be required to ensure competitive markets. Spectrum aggregation limits should be imposed only in the following circumstances:

- (i) a bidder that acquires a significant amount of spectrum would not face effective competition from providers of services that do not require use of the spectrum being auctioned; and,
- (ii) the anti-competitive effects arising from the acquisition of a significant amount of spectrum by a single bidder would not be offset by lower costs or higher valued services resulting from holding this amount of spectrum.”

#### 3.3.2 ELIGIBILITY REQUIREMENTS

Wispra submits that proper application of these objectives and principles requires restrictions on the eligibility of ILECs, CATV operators and LMCS licensees. Applying such eligibility requirements is fully consistent both with restrictions applied to LMCS licenses in Canada and to LMDS license auctions in the USA.

Wispra does not understand the Consultation proposal that “no restrictions on eligibility are required.” The Consultation provides no justification or explanation other than the following statement:

“Given the anticipated nature of the market-place that will be served by 24 GHz and 38 GHz licensees and with regard to the first principle stated above, the Department is of the view that no restrictions on bidder eligibility are required.”

Wispra does not understand what “anticipated nature of the market” logically leads to no restrictions. Nor does it understand how “regard to the first principle stated above” could lead to anything but restrictions being applicable.

Wispra submits that broadband services provided on frequencies at 24 and 38 GHz are directly competitive with broadband services offered by various established carriers. The Consultation states that “a competitive post-auction market-place for broadband services [requires] disallowing the participation of certain firms in the auction.” Wispra submits that the following are such firms:

- LMCS operators on frequencies at 28 GHz
- ILECs on copper and fiber optic networks, and
- CATV operators on fiber and coaxial cable networks

Wispra is satisfied that the proposed aggregation limits adequately deal with LMCS operators. Essentially, LMCS operators are to be ineligible in areas where they are already licensed.

However, unfair competition from ILECs and CATV operators has not been dealt with adequately, in fact not at all. Wispra submits that ILECs and CATV operators clearly qualify for restriction on their eligibility in compliance with Principle 1.

- Each certainly “possesses market power...in telecommunications services in a region covered”, and
- “a new entrant is likely to [compete] with the [ILEC or CATV] company’s existing services”

ILECs and CATV operators are in a position to reduce competition in broadband services in their service areas by their participation in auctions for 24 or 38 GHz licenses. Such capabilities include:

- bidding up the price of licenses beyond the reach of new entrants
- reducing the viability of new entrance by unduly increasing the cost of licenses
- buying and stockpiling licenses or using them ineffectively
- bundling wireless and wired services in a manner unavailable to new entrants

The financial resources of ILECs and CATV operators are far beyond those of new entrants such that buying licenses at elevated prices to foreclose potential competitors would be a sound business decision.

## *Broadband Wireless Competition*

Broadband wireless services at 24, 28 and 38 GHz are directly competitive. This has been recognized in the Department's statement that "a number of manufacturers have developed, or are...developing, point-to-multipoint broadband technology that can operate in a variety of frequency bands above 20 GHz, including the bands 24 GHz, 28 GHz and 38 GHz."

This is also clear from publications by the manufacturers Nortel and Newbridge (among others):

- "Nortel Broadband Wireless Access provides broadband wireless access solutions to network operators for the delivery of voice, data, IP and video services [for] fully integrated broadband wireless access networks at frequencies from 2 GHz to 42 GHz (including LMDS, LMCS, MMDS, MVDS)"
- Newbridge's "broadband wireless access solution ...provides LMCS/LMDS wireless operators with integrated multiservices access...for data, Internet, voice and video traffic"

The directly competitive nature of the broadband telecommunications services market across frequency bands is further demonstrated by statements from major licensees in the three frequency bands:

- **28 GHz: MaxLink** (a Canadian LMCS licensee): "'MaxLink's LMCS services will provide the market with competitive and advanced very high speed local telecommunications services, using wireless, which can be used for voice, data and video. LMCS can do everything that fiber can do, at competitive prices.<sup>1</sup>"
- **24 GHz: Teligent** (the largest US 24 GHz licensee): "offers any size company high-quality local and long distance phone service. Internet access [and] full-motion videoconferencing.<sup>2</sup>"
- **38 GHz: WinStar** (the largest US 38 GHz licensee): "The New Phone Company WinStar Communications, Inc. is a national local communications company serving business customers with local, long-distance and information services. The company also serves long-distance carriers, fiber-based competitive access providers, mobile communications companies, local telephone companies and other customers with broadband local communications needs.<sup>3</sup>"

Broadband wireless licensees provide or intend to provide the full range of services from full motion video to local and long distance telephone services in direct competition against the established wireline carriers.

---

<sup>1</sup> Maxlink Announces First Commercial Build Of Local Multipoint Communication System Network, Ottawa, Ontario, August 19, 1998 Press Release

<sup>2</sup> [www.teligent.com/index.asp](http://www.teligent.com/index.asp), November 30, 1998

<sup>3</sup> [www.winstar.com](http://www.winstar.com), November 30, 1998

### *Broadband Wired Competition*

ILECs and CATV operators are expanding their portfolio of conventional services to include broadband services in direct competition with new broadband service providers (as well they should). This is demonstrated by the two sample quotations from their web pages:

- **BCE** (owner of various Canadian ILECs and Canada's largest company): "based on the traditional network of copper (and now fibre optics) wires reaching around the world, "wireline" services offer basic and highly enhanced communications for voice, data, video, graphics. Communication is rapidly going multimedia with the simultaneous transmission of voice, music, data, still image, video, graphics.<sup>1</sup>"
- **vision.com** (consortium of Canadian CATV operators): "PC access services delivered via cable modems, to compete with conventional dial-up/telephone-delivered online services (including ISDN-based offerings) [and] high-speed Internet access. "DVC digital video compression... (e.g. higher quality images and sound) [and] services (e.g. navigators, new and advanced video offerings, exempt and interactive informational non-programming services). Dedicated access and private line wire and data services to businesses in larger, densely populated metropolitan areas; offering switched local data services, including metropolitan access networks (MAN) and high-speed packet and frame relay services for the business market; and, providing local switched wire-line based voice service for businesses and residential<sup>2</sup>"

They should not be in a position to restrict competition in such service by owning broadband wireless radio licenses in their serving territory. In its LMCS licensing, Industry Canada recognized the risk of reduced competition that would result from telephone companies and cable companies obtaining broadband wireless licenses. LMCS licenses were limited "to companies that do not already provide local telephone or cable TV services in Canada". In June 1998 the Minister chose to further put off the entry by telephone and CATV operators into broadband wireless services by delaying new licensing at 28 GHz for a minimum of 18 additional months. Wispra submits that 24 and 38 GHz licensing need to have similar protection from incumbent ILEC and CATV carriers who "possesses market power...in telecommunications services in a region covered."

---

<sup>1</sup> [www.bce.ca/e/about](http://www.bce.ca/e/about), November 30, 1998

<sup>2</sup> [www.ccta.com/english1/index.html](http://www.ccta.com/english1/index.html), November 30, 1998

## *Eligibility Proposal*

Wispra submits that as with LMCS, 24 and 38 GHz licenses should be limited to companies that do not already provide local telephone or cable TV services in Canada.

Wispra proposes that Industry Canada apply to the 24 and 38 GHz auctions the same eligibility criteria as were applied by the FCC to LMDS auctions<sup>1</sup>. They are as follows (with suggested Canadianization marked by [ ] and ...)

- “ILECs and cable television companies are subject to certain restrictions on their eligibility to own an attributable interest in the [24 and 38 GHz auctioned] licenses in their authorized or franchised service areas ("in-region").
- An incumbent is defined as "in-region" if its authorized service area represents 10 percent or more of the population of the BTA. A 20 percent or greater ownership level constitutes an attributable interest in a license. ILECs and cable companies are permitted to participate fully in the auction of the...licenses, but are required to divest any overlapping interests within 90 days if they win a license at the auction.
- The eligibility restrictions terminate on the third anniversary of the effective date of the LMDS rules. These restrictions may be extended beyond the three-year period, if, upon a review at the end of this period, the Commission determines that sufficient competition has not developed. [The Minister] may waive the restriction in individual cases upon a showing of good cause.”

The new 24 and 38 GHz licensees will already be late entrants into a competitive market place against established ILECs and CATV operators. Wispra submits that these new entrants deserve at least the same chance to succeed as the LMCS licensees.

Should someone suggest otherwise, eligibility restrictions apply equally well to auctions as to competitive submissions. The FCC eligibility restrictions in the US LMDS auctions are similar to the Canadian LMCS restrictions for competitive submissions.

So why didn't the United States did not apply eligibility restrictions (or spectrum caps) to 24 and 38 GHz licensees? US 24 and 38 GHz licenses were awarded some time ago based on FCFS principles. Wispra would waive its request for eligibility restrictions if its December 1997 application for 24 GHz licenses were granted on a FCFS basis.

---

<sup>1</sup> Auction of Local Multipoint Distribution /services, FCC Report No. AUC 97-17-A (Auction No. 17) , paragraph 3.3.2.2 A (1) (a)

### *Spectrum Aggregation Limit*

Wispra supports the proposal that a spectrum cap of 700 MHz in any service area apply across the 24 GHz, LMCS and 38 GHz bands for a period of three years. This would be conducive to the licensing of two new competitors in these bands.

Along with Industry Canada, Wispra “is concerned that anti-competitive market power could be exercised should the spectrum available to provide these services be concentrated in the hands of too few players.” Wispra further agrees with “the view that the licensing process of the 24 GHz and 38 GHz spectrum should take into account spectrum already awarded in the 28 GHz band to LMCS licensees.”

Wispra is concerned that the proposed 700 MHz spectrum cap for new entrants is substantially less than the 1000 MHz allowed to LMCS licensees. This serves to give the LMCS licensees a further undue advantage in addition to their two year head start. Wispra requests that the present and future LMCS licenses be required to comply with the 700 MHz spectrum cap applicable to everyone else. Grandfathering the existing LMCS licensees is Wispra’s second choice.

Three years is a reasonable duration for the spectrum cap and matches the three year term recommended for transferability, divisibility and implementation of services in sections 4.5 and 4.6.

Given that the LMCS licensees benefit substantially from their likely exemption from the spectrum cap, Wispra requests that the ownership restrictions applicable to LMCS operators be extended to terminate coincident with the spectrum cap applicable to 24 and 38 GHz licensees.

## 4. DEFINITION OF LICENSES

### 4.1 SPECTRUM LICENSES

If auctions are the selected licensing methodology, Wispra agrees that the Framework for Spectrum Auctions is an acceptable approach, subject to modifications as recommended in this submission including bidding credits.

### 4.2 SERVICE AREAS

Wispra agrees that the 59 Tier 3 service areas comprising the totality of Canada is a reasonable and appropriate number and size to make the auction manageable and the business opportunity attractive. This is an improvement over the service areas used with the LMCS where incomplete coverage of the country resulted in an unsolicited bid by one party for its choice of the remainder.

### 4.3 PACKAGES

Wispra supports the spectrum packages proposed in the Consultation with minor modification.

Wispra submits that licensees require a sufficient amount of spectrum in a service area to have the opportunity to compete effectively against the LMCS licensee having 1000 MHz, the CATV operator with high bandwidth cable and fibre networks, ILECs with wire and fibre networks, etc. Blocks of 400 MHz at 24 GHz and 400, 300 and 200 MHz should provide that opportunity.

Wispra accepts that subdividing one of the smaller blocks (D or C) into individual channels could provide spectrum for licensees with smaller bandwidth applications.

### 4.4 LICENSE TERM/RENEWAL EXPECTANCY

Wispra supports the proposal that “licenses have a ten year term and a high expectation of renewal.” Such conditions are necessary for new entrants to raise sufficient capital to participate in the auctions and to fund the build out of the business. A shorter term or low expectation of renewal would severely limit the ability of new entrants to participate.

## 4.5 TRANSFER AND DIVISION OF LICENSES & FLEXIBILITY OF USE

### *Transferability of Licenses*

Wispra agrees with the transferability of auctioned licenses and the terms proposed in this section of the Consultation, with the following addendum. A licensee who received bidding credits who transfers a license to someone who was not eligible for bidding credits or was eligible for a lower amount of bidding credits should repay the difference for the remainder of the license term.

### *Should Transferability be Delayed?*

Wispra considers that the discouragement of bidding for speculative purposes outweighs the benefits of secondary market transactions soon after the auction and therefore supports the delay of transferability for three years.

### *Divisibility*

Wispra supports the divisibility of licenses in both the bandwidth and geographic dimensions.

### *Should Divisibility be Delayed?*

Divisibility is a form of transferability and should be delayed for the same amount of time as transferability, i.e. three years.

## 4.6 IMPLEMENTATION OF SERVICES

Wispra agrees with the proposed condition of license (section 4.7 item 10): “Licensees must utilize the spectrum for bona fide wireless telecommunication services within three years following the close of this licensing process.”

The government’s objective to increase the connectedness of Canadians would not be well served if licensees were allowed to acquire spectrum and not use it within a reasonable amount of time. Implementation requirements also serve to discourage bidding for speculative purposes.

Service implementation requirements should be simple to understand and simple to administer. They should not be onerous, particularly given the new and evolving nature of broadband wireless technology and services. Cell sizes at 20 GHz and over are relatively small and customer premises equipment is currently relatively expensive. Until equipment costs come down with volume of production, broadband wireless technology is better suited to higher density rather than lower density locations.

As a result, Wispra submits that the following implementation requirements would be reasonable and fair:

- Within three years each licensee in each licensed service area should be operating one transmitter per two eligibility points (where points are defined in section 7.1.) Multiple transmitters at a single site shall count as multiple transmitters, e.g. a four sectored site is four transmitters.

As a test of reasonableness, this requirement was applied to the service areas with the largest and smallest populations as given in Table 4 (section 7.1). A 400 MHz licensee in Toronto (208 points) would be required to transmit in 26 cells of four sectors each (or equivalent) while a 200 MHz licensee in Cobourg (2 points) would be required to transmit on one sector in one cell.

Industry Canada should be able to readily measure such transmissions for compliance. Licensees should be required to include such implementation results in the proposed annual status reports (section 4.7 item 7.)

## 4.7 CONDITIONS OF LICENSE

Wispra agrees to the conditions of license as proposed in section 4.7 subject to consideration of Wispra's submissions contained elsewhere in the Reply, and the following:

1. **Eligibility criteria:** Agreed subject to eligibility restrictions on ILECs and CATV operators in their serving territories, as submitted in section 3.3.
2. **Lawful interception capabilities:** Wispra agrees that 24 and 38 GHz licensees who are carriers should be required to comply with lawful interception requirements that apply to all other carriers. Wiretapping and privacy issues are ones of great importance to all Canadians. Wispra is uncertain as to any legal requirement applied other than through radio licensing that carriers need to comply with the *Solicitor General's Enforcement Standards for Lawful Interception of Telecommunications* (Rev. Nov.95). If it is not a legal requirement then Wispra opposes its application to 24 and 38 GHz licensees.

Should such a standard be a legal requirement then it should be applied equally to all carriers, probably as a CRTC requirement. If it does not apply to all carriers, Wispra submits that its proposed application to new 24 and 38 GHz licensees may be discriminatory.

Wispra submits that the application of requirements concerning lawful interception of telecommunications, including the specifics of such conditions and their legality should be the result of a public consultation process not as a condition of license applicable to certain new radio licensees.

In the absence of such a public process, Wispra accepts that 24 and 38 GHz licenses be subject to the same condition of licensee concerning lawful intercept capabilities as have been applied to LMCS licensees.

3. **Proper installation and use:** Agreed.
4. **International coordination:** Agreed
5. **ITU radio regulations:** Agreed
6. **R&D:** Wispra agrees with a condition of license that carriers invest in telecommunication R&D an amount equal to 2% of gross revenues from commercial services derived from the licenses. The condition as worded does not say that. It could be interpreted to apply to 2% of all revenues of company whether or not it was a carrier and whether or not the revenues had anything to do with the radio licenses.
7. **Annual status reports for five years:** Agreed, including reporting on implementation of services as submitted in section 4.6.
8. **Spectrum cap:** Agreed as proposed at 700 MHz.
9. **Transferability and divisibility:** Agreed as proposed with three year delay (see section 4.5)

**10. 3 year implementation of service:** Agreed with build out requirements as proposed in section 4.6.

## 5. TECHNICAL CONSIDERATIONS

Wispra submits that the technical considerations should be based on the consensus of qualified technical experts in such bodies as Industry Canada and the Radio Advisory Board of Canada (RABC).

Wispra generally supports the principle that equal and opposite conditions should apply to neighbours at the boundaries of the license, both in the geographic and frequency domains, and that the license should be allowed to operate with minimal restrictions within these boundaries.

### 5.1 BOUNDARY CONDITIONS

Wispra agrees with the principle that “boundary conditions are to be applied at the edges of licensed areas.”

### 5.2 BLOCK AREA IMPLEMENTATION

Wispra agrees with the principles of block area assignment such that:

- “rules for interference management ...be developed in consultation with industry” and
- licensees “have the freedom to use the given spectrum in a particular area with a minimum of restrictions.”

### 5.3 COMMUNICATION BETWEEN LICENSEES

Wispra recommends that power flux density (pfd) measured at the boundary (either geographic or frequency) rather than worst case distanced calculations be the key measure for resolution of disputes.

Licensees should be directed to attempt to work out differences directly between the parties. Historically this has worked quite well, whether between licensees in adjacent territories within Canada or between Canadians and Americans. When it cannot be resolved between the parties, the dispute can be escalated to the appropriate regulator(s).

### 5.4 INTERFERENCE CONSIDERATIONS

Wispra considers that interference considerations is an excellent area for the technical experts to be called on to propose the appropriate models and trigger mechanisms for arbitration of unresolved disputes, emission limits and the like.

### 5.5 TYPE APPROVAL

Wispra supports the type approval of broadband wireless subscriber equipment with certification specifications developed in consultation with RABC.

## 5.6 SHARING ISSUES AT 24 GHZ

Wispra agrees to the proposed sharing with Fixed Satellite Service subject to the comments made in section 3.2 herein.

## 5.7 INTERNATIONAL COORDINATION

Wispra agrees that licensees shall be bound by applicable international coordination agreements. Wispra requests that Industry Canada seek international agreements that are based on the same principles that are contained in sections 5.1 to 5.6 herein.

## 6. LICENSING PROCESS

Although Wispra prefers licenses to be issued by FCFS and competitive submissions rather than auctions, Wispra accepts the licensing process proposed with due consideration given to Wispra's comments, proposals and recommendations contained herein.

### 6.1 PROPOSED AUCTION PROCESS

Wispra agrees with the auction process as contained in the Consultation sections 6.1.1 to 6.1.7

### 6.2 AUCTION DESIGN

Wispra agrees with the auction design as contained in the Consultation sections 6.2.1 to 6.2.10 with the addition of bidding credits as described herein in section 2.3.

As already stated, Wispra considers that Canada is falling behind the United States in opening new frequency bands. Canada needs to increase the rate at which new spectrum is licensed in order that the Canadian public, service providers and suppliers can benefit from the new wireless technologies and services. If auctions are the way to speed up the licensing, then that benefit alone may outweigh the disadvantages. Wispra recommends that Industry Canada position itself to decide quickly on more auctions or not based on the experience with 24 and 38 GHz and to proceed to license more spectrum sooner whatever the decision.

Should Industry Canada keep to the proposed schedule of starting 24 and 38 GHz auctions in the second quarter 1999, Canadian licensees will be two years or more behind licensees in the same bands in the United States and two years behind LMCS competitors in Canada.

At the Spectrum 20/20 Conference in Ottawa on December 2 1999, the Deputy Minister of Industry stated the "Speed Wins". Canada is not speedy at licensing 24 and 38 GHz and we are not winning. Wispra strongly recommends that Industry Canada make every effort to start the auctions in 2Q1999 as proposed.

The licensing process need not be perfect to be effective and beneficial to Canadians.

## 7. FINANCIAL ASPECTS OF THE AUCTION

### 7.1 RESERVE PRICES

Wispra accepts the proposed reserve prices as the minimum prices at which Industry Canada will issue licenses in the upcoming auction. They are easy to calculate and a reasonable starting point for the auctions.

Wispra has difficulty in understanding how reserve prices “conceptually linked to the cost of managing the spectrum” lead to the specific reserve prices as proposed of \$4700 per 100,000 population per 100 MHz. Wispra doubts that the cost of managing a Hertz of spectrum at 24 GHz in the Yukon is the same as a Hertz at 38 GHz in Toronto or a Hertz at 400 MHz in Vancouver.

Wispra also is concerned that reserve prices do not adequately take into account government objectives other than maximizing revenues and recovering spectrum management costs. Reserve prices do not contribute to such objectives included in the recent Speech from the Throne of “mak[ing] Canadians the most connected nation in the world “nor to “ensur[ing] that all Canadians have access to a world leading information infrastructure.” It is unlikely that reserve prices are needed in major metropolitan areas. It is unlikely that they are beneficial to Canadians living in other areas.

In the United States, when bidding has not exceeded the reserve price, the spectrum has been reauctioned later with a lower reserve price. Wispra expects the same to happen in Canada.

### 7.2 PRE-AUCTION DEPOSITS

Wispra agrees with the principle of pre-auction deposits and the amounts proposed.

Wispra agrees with the objective that “requiring all bidders to submit a pre-auction deposit...large enough to dissuade frivolous bidders...while not so large that sincere bidders are unable to participate [and] large enough so that it covers...penalties.”

Wispra does not see a relationship between such a number and the reserve price. However, the proposed deposit amounts adjusted for bidding credits appear reasonable for the purposes identified.

### 7.3 BID PAYMENT

Wispra agrees with the requirement to pay 20% of the high bids (adjusted for bidding credits) within 10 business days of the auction’s close and the remaining 80% within 45 business days of the auction close.

## APPENDIX A

Wispra supports the matching of frequencies, band plans and utilization of Canadian frequencies to the United States wherever practical for the reasons stated herein.

The 38 GHz band in Canada already matches the United States in frequencies and in channels but not in utilization. In Canada, five 50+50 MHz channels have been limited to point-to-point usage on shared basis while the same channels in the United States have been licensed as point-to-multipoint or point-to-point on an exclusive use basis. Wispra and others have received shared point-to-point licenses in Canada. Wispra considers that the opportunity has been lost to match the United States on these five channels and does not propose that the allocation of these channels be changed. The spectrum utilization policy provisions as contained in Appendix A are acceptable for these five channels.

However, Wispra does propose that no further channels in the 38 GHz band (or the 24 GHz band) be licensed in a manner that does not align with the United States.