



PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC

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ONE Nicholas Street, Suite 1204, Ottawa, Ontario, Canada K1N 7B7

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Senior Director
Spectrum Planning and Engineering
Engineering, Planning and Standards Branch
Industry Canada
300 Slater Street
Ottawa, Ontario K1A 0H5

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

Dear Mr. Lepage:

**Re: Gazette Notice SMSE-011-14 (May 31, 2014) - Consultation on a Policy,
Technical and Licensing Framework for Use of the Bands 2000-2020 MHz
and 2180-2200 MHz**

The Public Interest Advocacy Centre (“**PIAC**”) hereby submits the enclosed comments.

Yours truly,

(Original signed)

Geoffrey White
Counsel for PIAC

Encl.

c: John Lawford, Executive Director and General Counsel, PIAC (lawford@piac.ca)

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**Consultation on a Policy, Technical
and Licensing Framework for Use
of the Bands 2000-2020 MHz and
2180-2200 MHz**

**Comments of
the Public Interest Advocacy Centre
(PIAC)**

23 June 2014

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1. Introduction

- 1) The Public Interest Advocacy Centre (“**PIAC**”) makes the following comments in respect of Gazette Notice SMSE-011-14 (May 31, 2014) - *Consultation on a Policy, Technical and Licensing Framework for Use of the Bands 2000-2020 MHz and 2180-2200 MHz* (collectively the “**AWS-4**” band).
- 2) PIAC welcomes this consultation, and its proposals to licence more commercial mobile spectrum to address the needs of Canadians, particularly those living in rural and remote areas.
- 3) The 2000-2020 MHz and 2180-2200 MHz bands are currently designated by Industry Canada as mobile-satellite service (“**MSS**”), *i.e.*, cellular service via a satellite phone provisioned by satellites. The 40 MHz total is currently divided into two equal blocks – an A block (2000-2010 uplink and 2190-2020 downlink), and a B block (2010-2020 uplink and 2180-2190 downlink). Two geostationary satellites have the capability to provide MSS in Canada (and throughout North America) – both are owned by DISH Network Inc. Two services providers, one being a subsidiary of DISH and the other being TerreStar Solutions Inc. are authorized by IC to provide MSS in Canada. To date, though, there has been no deployment of either MSS or ATC service in Canada.
- 4) In 2004 the Department took steps to allow the development of an ancillary terrestrial component (“**ATC**”) in these bands – mobile service provisioned by towers/antennas on the ground. The idea was that a service provider would have both the coverage from space, and the physical infrastructure on the ground, and was premised on the argument by the MSS operators that satellite service on its own did not have attractive economics (satellite phones being more expensive and limited to receiving only satellite signals), and that terrestrial mobile services (cheaper devices, greater demand) in the same bands were necessary to improve the business case.
- 5) The United States Federal Communications Commission (“**FCC**”) appears to have recognized this and as part of the 2010 *National Broadband Plan* proposed repurposing the bands as “AWS-4” and allowing deployment of terrestrial-only mobile broadband service in the band.
- 6) In order to harmonize with what the FCC did in the United States, the Department is now proposing to make available 40 MHz of this spectrum to be used for ATC, in addition to MSS, and linking the authorization to deploy a stand-alone ATC terrestrial network to the provision of MSS.
- 7) In this regard, PIAC notes the possibility of the MSS component of the AWS-4 spectrum to be able to provide coverage to the entirety of Canada, and the possibility that allowing single-mode handsets for the ATC service could improve the overall economics of the

service for the service providers. As the Department notes, “the use of MSS has the potential to make mobile services available to 100% of the Canadian population.”¹

- 8) At the same time, PIAC notes that the affordability of MSS has not been addressed explicitly in the Department’s proposals, nor has the Department established any objective service standards.
- 9) In these comments first PIAC places this consultation within the broader context of wireless competition in Canada, and then PIAC makes specific comments in respect of the proposals in respect of deployment, transferability, and affordability.

2. The Broader Context

- 10) Canadians deserve more competition and choice in wireless services, and access to high quality services wherever in Canada they may be located. This is not just the view of PIAC, but is stated to be on Canada’s spectrum policy objectives, and the policy objectives for recent²³ and upcoming⁴ spectrum auctions.
- 11) In developing licensing frameworks for commercial mobile spectrum, Industry Canada has generally stated that it will be guided by the objectives stated in section 7 of the *Telecommunications Act*⁵, the policy objective stated in the *Spectrum Policy Framework for Canada*⁶ to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum, and the following policy objectives:
 - sustained competition in the wireless telecommunications services market so that consumers and businesses benefit from competitive pricing and choice in service offerings;
 - robust investment and innovation by wireless telecommunications carriers so that Canadians benefit from world-class networks and the latest technologies; and
 - availability of these benefits to Canadians across the country, including those in rural areas, in a timely fashion.⁷

¹ AWS-4 Consultation Document at para. 60.

² See e.g., *Policy and Technical Framework - Mobile Broadband Services (MBS) — 700 MHz Band and Broadband Radio Service (BRS) — 2500 MHz Band*, SMSE-002-12, (March 2012); *Licensing Framework for Mobile Broadband Services (MBS) — 700 MHz Band*, DGSA-001-13 (March 2013); and *Framework Relating to Transfers, Divisions and Subordinate Licensing of Spectrum Licenses for Commercial Mobile Spectrum*, DGSO-003-13, (June 2013).

³ AWS (2008), 700 MHz (2014).

⁴ 2500 MHz.

⁵ Telecommunications Act (S.C. 1993, c. 38)

⁶ Gazette Notice DGTP-001-07 (June 2007) *Spectrum Policy Framework for Canada*.

⁷ See e.g., *Policy and Technical Framework - Mobile Broadband Services (MBS) — 700 MHz Band and Broadband Radio Service (BRS) — 2500 MHz Band*, SMSE-002-12, (March 2012); *Licensing*

- 12) These policy objectives are also reflected in Industry's Canada's framework for terrestrial spectrum licence transfers (the "**Licence Transfer Framework**")⁸, as reflected in the *Licensing Procedure for Spectrum Licences for Terrestrial Services*.⁹
- 13) The wireless services market, however, continues to be dominated by three players. The national incumbents Bell Mobility Inc., TELUS Communications Company and Rogers Communications collectively control at least 85%¹⁰ (and likely more given the outcome of the 700 MHz auction) of available spectrum, 92% of subscriptions, and 93%¹¹ of revenue.
- 14) PIAC is therefore encouraged to see AWS-4, and other possible commercial mobile spectrum bands and unlicensed spectrum being made available to a broader range of service providers. At the same time, PIAC is concerned that imprecise obligations and unfettered discretion could result in the incumbents meeting the conditions of licence without meeting the Department's policy objectives, and without meaningfully influencing the competitive dynamic, particularly in the north.

3. Specific Comments

(I) Affordability and Quality of Service

- 15) Affordability of service and quality of service are key elements of the Department's policy objectives, and PIAC appreciates that the Department is proposing as a condition of licence the requirement, discussed above, that the MSS licensee must within 5 years of licence issuance demonstrate deployment on the basis of MSS handheld devices actively being marketed and purchased, Canadians being able to subscribe to MSS, and operational over the entire Tier 1 service area.

Framework for Mobile Broadband Services (MBS) — 700 MHz Band, DGSA-001-13 (March 2013); and *Framework Relating to Transfers, Divisions and Subordinate Licensing of Spectrum Licences for Commercial Mobile Spectrum*, DGSO-003-13, (June 2013).

⁸ DGSO-003-13 (June 2013) *Framework Relating to Transfers, Divisions and Subordinate Licensing of Spectrum Licences for Commercial Mobile Spectrum*, section 1.3.

⁹ CPC-2-1-23 — *Licensing Procedure for Spectrum Licences for Terrestrial Services* (August 2013).

¹⁰ Not including the 700 MHz spectrum, 85% of the available spectrum is in the hands of the incumbents. (Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum, SMSE-018-10 November 30, 2010, online: Industry Canada <[https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/smse018e.pdf/\\$file/smse018e.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/smse018e.pdf/$file/smse018e.pdf)> at 10.)

¹¹ CRTC, *Communications Monitoring Report* (2013), online: CRTC <<http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf>> at 161.

- 16) Crucially, however, there is no discussion of affordability – despite the reference to the Section 7 Canadian telecommunications policy objective of affordable services, and there is no stipulation in respect of quality of service that MSS subscribers should be able to expect.
- 17) In terms of affordability, PIAC recognizes here that in the past the Department has recognized that the Canadian Radio-television and Telecommunications Commission (the “CRTC”) is the proper authority for rating issues, and that the CRTC has initiated in recent years a number of proceedings relating to the ultimate issue of wireless rates in Canada.¹²
- 18) At the same time, PIAC notes that many Canadians still do not have access to affordable, high-quality mobile services, particularly in the North and that the average monthly household expense for communications services is \$185.¹³
- 19) PIAC has observed that in plans posted online by one third-party satellite phone agent¹⁴, satellite phones can cost upwards of \$1,600, and service plans can involve calling rates above \$1.50 per minute (which increased by orders of magnitude for calls to other satellite networks), and data rates of \$8.00¹⁵.
- 20) This begs the question of what the incumbents’ pricing will be for their MSS service, and whether that pricing will meet with the Department’s policy objective of affordability. Without setting rates, PIAC believes the Department could and should require the licensees to demonstrate to the Minister of Industry that the MSS has been deployed and that it is affordable to the average Canadian who would consider satellite phone as an option.
- 21) In terms of quality of service, PIAC believes the Department should set an objective service standard. In this regard PIAC notes that the CRTC is expected to revisit the telecommunications basic service objective, and may establish a target broadband speed which all Canadians can expect. PIAC encourages the Department to consider the CRTC’s previously established target, and the possibility of linking the MSS service standard to the CRTC’s standard.¹⁶

¹² Telecom Notice of Consultation CRTC 2012-206, *Proceeding to consider whether the conditions in the Canadian wireless market have changed sufficiently to warrant Commission intervention with respect to retail wireless services* (4 April 2012) at FN 2; Telecom Notice of Consultation CRTC 2013-685, *Wholesale mobile wireless roaming in Canada – Unjust discrimination/undue preference* (12 December 2013) para 3; Telecom Notice of Consultation CRTC 2014-76, *Review of wholesale mobile wireless services* (20 February 2014) at para 17.

¹³ CRTC, *Communications Monitoring Report* (2013).

¹⁴ Roadpost Canada, online: <http://www.roadpost.ca/satcom.aspx>

¹⁵ <http://www.roadpost.ca/BGAN-Subscriptions-P579C246.aspx>

¹⁶ See Telecom Regulatory Policy CRTC 2011-291, *Obligation to serve and other matters* (3 May 2011).

(II) Deployment

22) As the Department notes, one of the objectives of the *Telecommunication Act* is “to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada.” The Department has therefore proposed a deployment condition of licence for the MSS spectrum and for the ATC spectrum.

23) The proposed deployment condition of licence for the MSS spectrum states that:

The licensee must demonstrate to the Minister of Industry that the MSS has been deployed in Canada, within 5 years of the issuance of this licence. Specifically, the licensee must demonstrate, on an ongoing basis, that:

- (a) MSS handheld devices are being actively marketed and purchased by Canadians. These handheld devices must support voice and data transmissions;
- (b) Canadians can subscribe to the MSS; and
- (c) the service is operational over the entire Tier 1 licensed service area within the coverage contour and service availability of the EchoStar T1 satellite.

The licensee must also notify the Department of any material changes to arrangements for providing mobile satellite services in Canada.¹⁷

24) PIAC welcomes this obligation, but recommends that the Department provide more clarity as to what the licensee must do to be in compliance with the obligation.

25) On the one hand, the AWS-4 Consultation Document speaks to the use of MSS having “the potential to make mobile services accessible to 100% of the Canadian population”, but on the other hand, the proposed conditions of licence do not specifically state 100% accessibility but simply states that “Canadians can subscribe to the MSS” and that “the service is operational over the entire Tier 1 licensed area within the coverage contour and service availability of the EchoStar TI satellite”.¹⁸ When read in conjunction with the proposed deployment conditions of licence it seems possible that a licensee will be able to demonstrate compliance even with only a handful of subscribers to the service. Again, more clarity is needed to what the licensee must do to be in compliance with the obligation.

26) We also note that it is not clear what the capacity limitations will be of the incumbents to provide service, and what the quality of service to subscribers will be.

¹⁷ AWS-4 Consultation Document, Annex A, “Proposed Conditions of Licence for Mobile-Satellite Service (MSS) Spectrum Licences”, Section 6.

¹⁸ AWS-4 Consultation Document, Annex A, “Proposed Conditions of Licence for Mobile-Satellite Service (MSS) Spectrum Licences”, Section 6.

- 27) In the case of the ATC, the Department is proposing a 5-year deployment condition of licence and a 10-year deployment condition of licence.
- 28) The proposed deployment condition of licence for the ATC spectrum requires 30% population coverage at the tier 1 (national) level within five years of licence issuance, and this target can be met anywhere in the country.
- 29) The 10-year deployment obligation is 20% to 50% minimum deployment, at the tier 2 (provincial-regional) level. The Department states that a “failure to meet the deployment requirements in any of the 14 areas *could* lead to a revocation of the national ATC licence.”¹⁹
- 30) PIAC recognizes that the Department is trying to align the ATC deployment conditions of licence with those imposed in respect of the AWS licences and 700 MHz licences, which were based on covering the main population centres in each of the respective services areas. PIAC recommends that instead of leaving licence revocation to the discretion of the Minister, the consequence of failure to meet the deployment targets should be licence revocation. Not only would this provide more of an incentive for licensees to deploy, but a strict insistence upon deployment is reasonable in light of how low the ATC deployment targets actually are.

(III) Licence Transferability and Divisibility

- 31) The Department has proposed that the MSS spectrum not be transferred or assigned without a full review by Industry Canada and Ministerial-approval. The Department has proposed that the ATC licences be transferable in whole or divisible in parts, in both bandwidth and geographic dimensions, subject to Industry Canada’s approval of a sub-licensing arrangement, and subject to a moratorium on “large wireless service providers” obtaining an ATC licence during the initial 20-year term.
- 32) In the case of MSS, PIAC supports the need for a full review of any potential transfer, however notes that the criteria by which any transfer would be evaluated are not stated, nor is there a framework for satellite licence transfers akin to the Licence Transfer Framework for terrestrial licence transfers. While PIAC recognizes, as did the Department, that “the supply and demand conditions for spectrum for the provision of satellite services differ greatly from those of the terrestrial services”, PIAC also suggests that the possibility of an MSS transfer should be tied to the fulfillment of specific policy objectives and not left solely to unfettered discretion.

¹⁹ AWS-4 Consultation Document at para. 67 (emphasis added).

- 33) In the case of the 20-year moratorium on ATC licence transfers to “large wireless service providers”, while PIAC understands the policy objectives of promoting more competition, and the related measure of allowing smaller competitors the opportunity to access spectrum that would otherwise be foreclosed by larger service providers, PIAC also questions whether the subjects of the ban, “large wireless service providers”, is appropriate in light of the Government’s stated objective of having four competitors in Canada, and the prospect of a fourth national wireless service provider. It may very well be that there may be wireless service providers operating under or near this threshold or above it, could be in a position to become that fourth competitor, but what the moratorium would do would be to frustrate that service provider from gaining valuable terrestrial spectrum in the face of the “big three” (Bell, TELUS and Rogers) who have a considerable head-start on terrestrial spectrum.
- 34) Therefore PIAC recommends that the Department should instead rely on its Licence Transfer Framework to assess possible ATC licence transfers, as the Department indicates it will, rather than this bright-line prohibition.

4. Conclusion

- 35) The prospect of nationwide mobile broadband coverage is appealing, and thus PIAC welcomes the Department’s proposals, subject at this point to the comments noted about affordability, deployment, and transferability.
- 36) PIAC looks forward to reviewing the submissions of other parties in this consultation, and to providing its reply comments on July 8, 2014.

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