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15 June 2009

by Email

Mr. Peter Hill
Director – Spectrum Management Operations
Radiocommunications and Broadcasting Regulatory Branch
Industry Canada
300 Slater Street
Ottawa, ON K1A 0C8

Dear Mr. Hill:

**Subject: Comments - Consultation on Revisions to the Framework for Spectrum
 Auctions in Canada, Canada Gazette, Part I, 11 April 2009 - DGRB-001-09**

Please find attached the comments of MTS Allstream Inc. in response to Gazette Notice DGRB-001-09 - *Consultation on Revisions to the Framework for Spectrum Auctions in Canada*, Canada Gazette, Part 1, 11 April 2009.

Yours truly,

A handwritten signature in blue ink, appearing to read "Teresa Griffin-Muir", written over the text "Yours truly,".

for Teresa Griffin-Muir

c.c.: Marlene Floyd, MTS Allstream, 613-688-8770

Attachment

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***Consultation on Revisions to the Framework
for Spectrum Auctions in Canada***

Canada Gazette, Part I, 11 April 2009

DGRB-001-09

Comments of



15 June 2009

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1.0 INTRODUCTION

1. These are the comments of MTS Allstream Inc. (MTS Allstream) in response to Gazette Notice DGRB-001-09 - *Consultation on Revisions to the Framework for Spectrum Auctions in Canada*, Canada Gazette, Part 1, 11 April 2009 (the Auction Framework Consultation).
2. In the Auction Framework Consultation, the Department has raised key issues that will impact the future of the wireless and mobile industry in Canada – a sector that is key to economic growth going forward. The issuance of licenses for new spectrum in bands that are developing globally, in particular in support of widespread access to mobile broadband service, is needed to enhance Canada's competitiveness and to bring the benefits of new technologies and services to Canadian consumers. To ensure that Canadians are not left behind, MTS Allstream believes that it is important for Canada to move in lock-step with the spectrum auctions in US, especially given the integrated nature of the market and the increasing globalization of the industry.

2.0 SPECTRUM MANAGEMENT IN CANADA AND THE APPROPRIATE LEVEL OF REGULATION

Comments are sought on the appropriate level of regulation that the Department should use when managing spectrum into the future with respect to the subjects raised in this paper.
(Auction Framework Consultation, Section 2)

3. As noted in the Auction Framework Consultation, the Department's current policy framework includes the following:
 - a. Market forces should be relied upon to the maximum extent feasible.
 - b. Notwithstanding (a), spectrum should be made available for a range of services that are in the public interest.
 - c. Spectrum should be made available to support Canadian sovereignty, security and public safety needs.

- d. Regulatory measures, where required, should be minimally intrusive, efficient and effective.
- e. Regulation should be open, transparent and reasoned, and developed through public consultation, where appropriate.
- f. Spectrum management practices, including licensing methods, should minimize administrative burden and be responsive to changing technology and marketplace demands.
- g. Canada's spectrum resource interests should be actively advanced and defended internationally.
- h. Spectrum policy and management should support the efficient functioning of markets by:
 - o permitting the flexible use of spectrum to the extent possible;
 - o harmonizing spectrum use with international allocations and standards, except where Canadian interests warrant a different determination;
 - o making spectrum available for use in a timely fashion;
 - o facilitating secondary markets for spectrum authorizations;
 - o clearly defining the obligations and privileges conveyed in spectrum authorizations;
 - o ensuring that appropriate interference protection measures are in place;
 - o reallocating spectrum where appropriate, while taking into account the impact on existing services; and

- applying enforcement that is timely, effective and commensurate with the risks posed by non-compliance.
4. MTS Allstream agrees with the general thrust of the current spectrum policy framework, but offers comments below on a number of elements in respect of considering the appropriate level of regulation.

2.1 Market forces

5. As noted in MTS Allstream's comments in the consultation conducted by the Department in 2007, prior to the 2008 auction:¹

The wireless sector is not like other telecommunications industry sectors. Increased competition in this industry sector is only made possible if an entrant can secure a spectrum licence from the Government. This is an absolute barrier to entry into the market and, absent auction rules which create AWS spectrum licences that are designated for entrant bidders, the evidence shows that the "Big 3" incumbent wireless operators will adopt auction behaviour that is pre-emptive of additional market entry by acquiring all of the licences available in the auction.²

6. In other words, "market forces" do not necessarily result in a more competitive outcome and the Department thus wisely ran its 2008 auction to include a "set aside" of licenses for new entrants.
7. The set aside consisted of 40 MHz of Advanced Wireless Services (AWS) capacity, out of a total of 105 MHz included in the auction, divided into three licenses labeled "B", "C" and "D". The other "non-set-aside" licenses in the auction were three AWS licenses "A", "E" and "F", as well as one Expansion Personal Communication Service (PCS) license,

¹ "2008 auction" herein refers to the auction of "Advanced Wireless Services and Other Spectrum in the 2 GHz Range" which began 27 May 2008 and ended 21 July 2008.

² Advanced Wireless Services Consultation DGTP-002-07, Comments of MTS Allstream Inc., 25 May 2007, paragraph 7.

- “G”, and one set of licenses covering 1670-1675 MHz, the “I” licenses. The non-set-aside licenses were open to bidding by any bidder, entrant or incumbent.
8. The auction bidding was dominated by the AWS blocks, representing 98% of the total proceeds of the auction. Entrant bidding on the AWS set-aside blocks represented 95% of the final bids of entrants.
 9. The AWS non-set-aside A, E and F blocks – representing 50 MHz in total – were highly valued by the incumbents, Bell Canada (“Bell”), Rogers Wireless Inc. (“Rogers”) and TELUS. There were 59 A block licenses available in the auction. Rogers purchased 58 of them, along with 1 F block license to get national coverage, paying almost \$1 billion in total. Similarly there were 59 licenses available for each of the E and F blocks. TELUS paid \$880 million to get national coverage with 59 E/F block licenses and Bell almost \$740 million for 51 E/F block licenses and 1 A block license. Only seven of the non-set-aside AWS licenses, i.e. four percent of the licences on offer representing less than one percent of the total auction proceeds, were acquired by parties other than Rogers, Bell and TELUS.
 10. The set aside mechanism thus worked, allowing entrants to purchase 40 MHz of AWS spectrum. Absent the set aside, this outcome would have been very unlikely.
 11. Recently, in the Look transaction, Rogers and Bell also acquired 92 MHz of Midpoint Distribution Service (MDS) licenses covering key markets in Ontario and Quebec in the 2.6 GHz range. Look’s licenses add to the 98 MHz of 2.5 GHz Multipoint Communication System (MCS) spectrum already held by Rogers and Bell via Inukshuk covering those same markets, as well as much of the rest of the country.
 12. The MCS/MDS spectrum is in the process of being transitioned to “broadband radio service” (BRS) licenses. Under Industry Canada’s 2006 policy, licensees can use the

spectrum for mobile service by returning one third of their BRS spectrum to the Department for relicensing.³

13. Rogers, Bell and TELUS are also making use of 850 MHz cellular spectrum to implement new technologies such as HSPA to provide high data rate services, facilitated by changes to technical rules for cellular service issued in September 2008.⁴ These cellular, or first generation mobile, licenses were issued at a time when mobile was a small emerging market and the technology only supported basic voice service; now these licenses are being used for new technology to enable transitioning to third or fourth generation services.
14. In most non-North American markets, licenses historically were tied to specific technology deployment. For example, European mobile licenses in the 900 MHz range are “GSM” licenses. These GSM licenses did not come with the right to use technology other than GSM – i.e. they were issued for voice/2G service. In order to obtain the right to deploy technology other than GSM in the 900 MHz range, the UK Government, for example, is considering requiring incumbents to return a portion of their 900 MHz holdings in order to be able to use the licenses for something other than GSM – i.e. to allow them to deploy 3G or 4G technologies such as HSPA, WIMAX or LTE.
15. In some cases, this “re-farmed” 900 MHz spectrum may ultimately be auctioned alongside other higher frequency ranges, notably the 2500-2690 MHz range. This will help ensure that entrants as well as incumbents are able to access different types of frequencies to be able to compete on the same basis – i.e. using a mix of high and low frequency bands.⁵
16. MTS Allstream thus recommends that the appropriate level of regulation should be guided by:

³ The Department is conducting a separate consultation on the transition to BRS licensing for the 2500-2690 MHz range (also referred to as the 2.5 GHz and 2.6 GHz bands) – Gazette Notice no. DGRB-005-09.

⁴ Please refer to MTS Allstream’s comments in that consultation for discussion of BRS-specific issues. SRSP 503 – Technical requirements for cellular radiotelephone systems operating in the bands 824-849 MHz and 869-894 MHz, Issue 7, September 2008.

⁵ Higher frequency bands typically have greater capacity available but transmit over shorter distances. Lower frequency bands have lower capacity but transmit over longer distances.

- The need to ensure that no bidder or group of bidders is able to monopolize bidding in auction processes. As has been evident from past auctions in Canada, specific mechanisms, such as setting aside licenses for entrants, are needed to allow market forces to work. Other mechanisms can accomplish a similar goal and may be appropriate in future auctions.
- The need to ensure that different players in the industry have equitable access to different types of spectrum, i.e. high versus low frequency ranges. The lower frequency ranges have better propagation characteristics and are predominantly held by the large incumbent wireless service providers. This gives them a significant competitive advantage over any potential competitor deploying only in higher frequency ranges. Future auction processes should take into account the overall holdings of parties via different bands.

2.2 Make spectrum available in timely fashion

17. The North American telecom market is highly integrated. Canada, as a much smaller market than the US, typically follows in lock-step, gaining access to key technologies and importantly providing services that are “mobile” across borders. Licensing should also ensure that Canadian carriers have access to the same licenses as their US counterparts in a timely fashion.
18. Canada is too small a market to “lead” the US, particularly in mobile which is increasingly global in scale. On the other hand, Canada is an active participant in spectrum allocation discussions at the global level, many of which are known well in advance of licensing processes.
19. For example, AWS was established starting with the 2000 World Radio Conference (WRC), the ITU-sponsored world conference on radio allocations. In the US, the National Telecommunications and Information Administration (NTIA) established the designation in 2002, and in 2004 the Federal Communications Commission (FCC) notified Congress of the intent to auction AWS. The US auction took place in 2006.

20. In its 2003 consultation, the Department identified its role in the 2000 WRC in terms of promoting the 1.7 GHz and 2.1 GHz ranges as resources for advanced wireless services:

Since 1998, the Department and the wireless industry have been very active in the international fora in promoting the designation of spectrum in the bands 1 710-1 850 MHz and 2 110-2 150 MHz as additional resources for AWS networks. The 1 710 MHz and 2 110 MHz bands were the main Canadian proposals to the World Radiocommunication Conference 2000 and were included as part of the international designations in the ITU Table. Since large-scale commercial deployments of these networks are essential to ensure the success of these bands in Canada and to allow ubiquitous operations throughout North America and abroad, the Department and the Canadian industry have been very active in promoting these bands internationally since the WRC-2000 decision.⁶

21. The Canadian auction for AWS was run in 2008, almost two years after the FCC auction in the US.
22. With respect to the 700 MHz spectrum licensing, the band plan and technical characteristics are similarly well known and the US auction was completed in early 2008, approximately one year before the completion of the US transition to terrestrial digital television, which is required to free up the spectrum. Many other countries are planning similar auctions in the frequency range freed up by the transition to digital television, the ones most likely in the 2009-2010 timeframe being the UK and a number of European countries.
23. In Canada, there is currently no process in place to auction 700 MHz licenses and no timeline that prospective bidders can use in order to start planning. Canada's digital

⁶

Consultation on the Spectrum for Advanced Wireless Services and Review of the Mobile Spectrum Cap Policy, Gazette Notice no. DGTP-007-03, October 2003, Section 2.2.

television transition date is August 2011, which would imply that the auction for 700 MHz licenses should be held in mid-2010.

2.3 Need clarity surrounding release plans

24. Coupled with the timeliness of spectrum release, the industry would also benefit from greater clarity as to the overall release plans.
25. In addition to ensuring that spectrum is licensed in a timely fashion – ideally in lock-step with the US – the Department should endeavor to ensure that there is a clear path to release of spectrum. This is particularly the case for key mobile bands that are established globally and have been subject to years of development.
26. For example, the BRS frequency range (2500-2690 MHz), has been the subject of global discussion for many years. The BRS range was identified in 2000 as expansion spectrum for 3G as part of the IMT-2000 standards initiative. The Department's current policy for BRS does not provide a clear path for the use of this band for mobile, which could risk a delay in bringing the benefits of new technology in this band to Canadian consumers.⁷
27. Part of the reason for delays and lack of clarity may come from the fact that the Department is a government department and does not have a specific mandate to "market" the country's spectrum assets. Licensing processes are thus subject to lobbying efforts that may affect timing as well as clarity, and to changes in Government, which can often add to delays.
28. While not a panacea, there may be some merit in having an independent spectrum management agency. Some of the benefits of such an arrangement may include:
 - The activities of the independent spectrum management agency would not be slowed down due to elections, changes in Ministers or other Ministerial priorities;

⁷

See Gazette Notice no. DGRB-005-09. Please refer to MTS Allstream's comments in that consultation for discussion of BRS-specific issues.

- With a marketing focus – i.e. a mandate to put spectrum out for auction – it would have a natural incentive to move quickly; and
- The agency would tend to see the industry players as their customers, thus the agency would see it in its interest to ensure that processes provide for equitable access to desirable spectrum.

29. Of course the activities of an independent spectrum management agency would have to be founded on clear policy direction from the Department, which would of course retain this key role.

3.0 AUCTION TYPES AND ATTRIBUTES

Comments are sought on the various types of spectrum auctions and auction formats to be used by the Department as well as the circumstances under which a particular format or attribute should or should not be applied. (Auction Framework Consultation, Section 3)

3.1 Types of auctions

30. In the consultation document the Department identifies a number of types of auction:

- Simultaneous multiple-round ascending (SMRA) auction;
- Sealed-bid first-price auction;
- Sealed-bid second-price auction (also known as a Vickrey auction); and
- Clock auction of substitutable blocks.

31. In addition there are other types of auctions that the Department has not included on its list. Of note and relevant to the present consultation is the “least cost subsidy” auction. There are also variations on these types.

3.1.1 Simultaneous multiple-round ascending (SMRA) auction

32. The SMRA auction was pioneered by the FCC in the US and has been used successfully to issue licenses for many bands and over many years. The basic concept is that a set of licenses is offered simultaneously over multiple rounds, where the price for licenses where there is bidding activity increases in each round. The auction ends naturally when there are no new bids on any of the licenses. The Department used this process in its first five auctions.
33. There are variations around the SMRA process. In the 2008 AWS Auction (Auction 5) the Department set aside specific licenses for new entrant bidders. Thus, the SMRA process was the same as in earlier auctions except that incumbents could not bid on the set-aside licenses.
34. The Department previously used other mechanisms to help manage the auction process. In the 24/38 GHz auctions (Auctions 1, 3, and 4), the Department limited the total amount of spectrum any individual bidder could acquire in the auction. In the Additional PCS auction (Auction 2), bidders were constrained by their total mobile holdings via a spectrum cap that included consideration of existing spectrum holdings.
35. The Department has thus seen fit in all of its auction processes to date (with the exception of the air-ground process) to use a mechanism to ensure that the “market forces” at play result in a more equitable distribution of licenses than would otherwise be expected. MTS Allstream believes that the Department was correct in doing so and supports future mechanisms that ensure further development of competitive alternatives in the Canadian market.
36. Approaches to licensing spectrum other than via SMRA auctions may be appropriate in specific situations, some of which are discussed below. However overall MTS Allstream believes that the SMRA auction, when it includes appropriate mechanisms to limit monopolization, should be the “default” process used in Canada.

3.1.2 Sealed-bid first-price auction

37. A sealed-bid first price auction is similar to a procurement process where quotes are requested from prospective suppliers. In a licensing context, the “winner” of the bidding process would be the highest offer rather than the lowest. Given therefore the innate ability of the largest bidders to pay the most in a first price bid, a sealed-bid process could include attributes that are not simply monetary.
38. In other words, rather than winning based purely on dollars, a sealed-bid process can also include other parameters which then can be combined with dollars to create a score. The bidder with the highest score would be the winner and it may not be the bidder willing to pay the most for the license.
39. The Department could use a sealed-bid first-price approach to address a specific situation, such as the build out of remote areas that are underserved or not being serviced at all as a result of past licensing processes.
40. Since many of these areas may have negative value – i.e. they should not attract a positive bid price in an auction since they are too expensive to serve – the bid could be a competition for a subsidy associated with the build-out.
41. The bidder willing to build out an area for the least cost subsidy would be the winner. In some cases, this could be the existing licensee holding the tier license associated with the area and in some cases not. The approach would be similar to the Department’s “New Party” policy relating to cellular service.⁸ Parties, possibly including the incumbent, could make applications to cover areas that are targeted, and bid for the right to build out at a level of subsidy that is acceptable to their business case.
42. On the other hand, for some rural parts of the country there may be a positive business case to build out to those areas, but smaller bidders have been unable to target these

⁸ See Industry Canada Notice no. DGTP-005-98 — Policy for the Provision of Cellular Services by New Parties, 1998.

because the area falls into the same tier as a large, urban population centre. In such instances, a new set of tiers may be required.

3.1.3 Sealed-bid second-price Vickrey auction

43. The Department used this approach to auction Air-Ground licenses in May 2009. In the consultation leading up to this auction, the Department set out its rationale for using the Vickrey auction process:

“Although the SMRA is an excellent tool when there are a large number of licences, there are only two spectrum licences being offered in the Air-Ground Services. Furthermore, the Department intends to offer the licences such that the bidders will have the option of bidding on the individual licences and/or on both licences as a package. As package bidding is not supported by the Department's SMRA design, and having carefully considered other auction designs, the Department is proposing a simple, expeditious, sealed-bid, second-price auction process, known as a Vickrey auction.”⁹

44. It would appear that one of the main driver's of the Department's choice of mechanism was that it wanted to support package bidding – i.e. allowing bidders to choose from one or more packages of license rather than one or the other – which the Department's SMRA system does not currently support.
45. As the Department notes, there were only two licenses on offer – keeping the number of possible combinations very low at three, one license, the other or both¹⁰ – and based on the consultation process the Department no doubt expected very few bidders.

⁹ Spectrum Utilization Policy and Consultation on a Framework to Auction Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services, Gazette Notice DGRB-004-08, Industry Canada, November 2008, Section 3.

¹⁰ In the FCC Air-Ground auction there were other variants. The FCC had three band options, one with two equal sized but overlapping licenses and two unequal but non-overlapping options, one with a small license in the high frequency and the other with the small license in the lower frequency range. The FCC auction ended with the band option of two unequal bands with the smaller license in the high frequency range. Industry Canada adopted this winning band combination for the Canadian auction.

46. The Air-Ground award could very simply have been done using a sealed-bid first price auction. This may have yielded a different result from what the Vickrey process did.
47. In the auction process, there were initially three bidders, one of which dropped out, leaving only two bidders and two licenses. MTS Allstream was one bidder and SkySurf Communications the other. Air-Ground service is a highly specialized and small market and the Canadian market consists in large part of incoming traffic from US airlines. Hence, MTS Allstream teamed up with AirCell, the winning bidder of the largest license in the US auction, held in 2006. In addition to already being in service with several major US airlines, AirCell also has an agreement to provide service on Air Canada once it had access to a Canadian license.¹¹
48. Part of the intent of the Vickrey process is to incent bidders to bid their true license value, since if all the bidders overbid, then the winner has a risk of overpaying even at the second highest price. However, with so few bidders involved and only two licenses, this was not necessarily consistent with the outcome of the air-ground auction.
49. Other mechanisms that could have worked better, i.e. in a case of a specialized market where there are very few bidders:
 - Sealed bid first price auction – Bidders could have submitted the same bids to Industry Canada with the same assessment of which license combination had the highest value. If SkySurf put in the same bid as it submitted in the Vickrey process they would have won anyway, however they would have done so knowing with certainty that they would actually have to pay the amount bid if they won.
 - Comparative selection – This is one of few cases where comparative selection, with hindsight, might have yielded a better result. Industry Canada would have seen the huge disparity in bid amounts from the two bidders and could have used that information along with other factors (such as which bidder already had an

¹¹ AirCell press release, 9 September 2008; service to be offered initially only on trans-border flights using AirCell's US network.

operational partner and was ready to start service) to choose the winner or assign one of the two licenses to each of the two bidders.

50. MTS Allstream does not recommend that the Department use the Vickrey process for future auctions.

3.1.4 Clock auction of substitutable blocks

51. The SMRA auction is a type of “clock” auction in the sense that there is a clock running for each round and bidders have to make their interest known within the round time before the price changes. In the UK, Ofcom is planning to use a modified clock auction approach wherein the first phase of bidding will be on substitutable blocks, followed by a second phase where specific licenses are awarded.
52. For example, if Industry Canada had run the AWS auction on this basis, the 105 MHz of spectrum could have been subject to bidding based on 21 blocks of 5 MHz. In each round, bidders would bid a value for a given number of blocks – e.g. Bidder A may bid for 8 blocks of 5 MHz, Bidder B for 3 blocks, Bidder C for 3 blocks, Bidder D for 6 blocks, etc. In this way the bidding progresses towards the point where the combination of bidders and blocks creates a set of prices for 21 blocks of 5 MHz – the increasing price per block reduces how many blocks different bidders may choose which also modifies their eligibility for further bidding. Once the number of blocks in the bidding equals the number of blocks available, the price per block is set. The auction then focuses on assigning the groups of blocks to bidders.
53. Use of substitutable blocks would presumably reduce the possibility of a difference in price for different blocks, as is often the case in the more traditional SMRA auctions. It could also help facilitate acquisition of contiguous blocks of spectrum and effectively provides for award of packages of licenses without having to pre-define them.
54. However these benefits are less clear in the Canadian market which is small and has relatively few large bidders.

55. Amongst the non-set-aside blocks, the A Block, targeted by Rogers, was ultimately sold for the equivalent of about 11 percent less than the E/F Blocks, targeted by Bell and TELUS.¹²
56. Using substitutable blocks instead of the fixed A, E and F Blocks may have resulted in Rogers paying somewhat more for its licenses and Bell and TELUS somewhat less, but the outcome of the auction would not likely have been any different.
57. There was an even narrower result amongst the entrants on the set-aside AWS B, C and D blocks, where the B Block was sold for the equivalent of only about 8 percent less than the C/D Blocks.¹³
58. In addition, use of substitutable blocks also implies that the blocks can indeed be interchanged and substituted for one another. The 2008 auction included spectrum licenses where this was clearly not the case.
59. The G Block and the I Block are not interchangeable with AWS. The G Block is adjacent to PCS spectrum and the I Block 1670-1675 MHz is standalone. There is no commercial technology available for these blocks and the difference with AWS is likely reflected in the much lower bid prices for these blocks.
60. Overall therefore, while certain attributes of substitutable blocks may be attractive, it is not clear that they would have resulted in any different outcome in the 2008 auction in Canada.
61. As discussed above, MTS Allstream believes that the Department should focus spectrum management on ensuring that no bidder or group of bidders is able to monopolize bidding processes, and should also work to ensure that players have equitable access to different types of spectrum. Using substitutable blocks does not in and of itself address either of these overarching issues.

¹² Based on \$/MHz-pop for the 20 MHz A licenses compared to the 30 MHz represented by the E and F licenses.

¹³ Based on \$/MHz-pop for the 20 MHz B licenses compared to the 20 MHz represented by the C and D licenses.

3.1.5 Other

62. As noted above, other types of auctions may be appropriate in specific situations. A targeted program to provide coverage for underserved or unserved remote areas could benefit from a least-cost subsidy auction, which could effectively be run using a sealed-bid first-place process.
63. In general, however, the SMRA process provides the best way for the Department to run spectrum auctions. Newer variants on the SMRA process – package bidding, blind bidding, etc – may be appropriate in specific situations, but given the small Canadian market and the relatively low number of bidders in Canadian auctions, careful consideration should be given before making use of these. The Department instead should focus on ensuring that no one bidder or group of bidders is able to monopolize the auction, and that all parties have equitable access to spectrum of different types.

4.0 USE OF AUCTIONS FOR SATELLITE LICENSING

Comments are sought on the Department using auctions to select those to whom a satellite authorization will be issued. (Auction Framework Consultation, Section 4)

64. MTS Allstream has no comment on the use of auctions for satellite licensing.

5.0 LICENSE RENEWAL

Comments are sought on all issues relating to the Department's proposal regarding the renewal process for long-term licences, including:

that licences continue to have a high expectation of renewal;

that licences continue to be issued for 10-year terms;

that the conditions of licence applied to the renewed licences may differ from those on the existing licences, with such changes being made following a consultation; and

that fees be imposed for renewed licences and be based on an estimation of the market value of the spectrum. (Auction Framework Consultation, Section 5)

65. MTS Allstream believes that long license terms are necessary given the high investments required to be in wireless businesses. Long license terms also reduce uncertainty surrounding possible changes to license conditions on renewal.
66. As per MTS Allstream's comments in the Department's earlier consultation on cellular and PCS license renewal, the key characteristics that should apply to spectrum licenses in general are:¹⁴
- Licenses should be issued for terms longer than ten years, such at 15 or 20 year terms; and
 - There should be a high expectation of renewal for subsequent terms.
67. MTS Allstream also notes that the Department intends to conduct a separate consultation on renewal fees for PCS and cellular licenses. The approach adopted as a result of that consultation on the specific situation should provide a common way of dealing with renewal fees for other license types as well.
68. In general, it is MTS Allstream's view that bid prices paid in auctions are reflective of the very long life of the anticipated wireless business resulting from being able to exploit the license. In this context an additional "market-based" renewal fee would not likely be appropriate.
69. On the other hand, the Department could consider instituting a standard cost-based fee for spectrum administration, to recover the direct costs of spectrum management. For existing licenses, this could be put in place for renewal terms. For new licenses, this could be effective on license issuance. Thus bidders in auctions would have clarity regarding the total cost of the license and would incorporate the expectation of the ongoing administrative fee into their bid values.

¹⁴

Consultation on Renewal of Cellular and Personal Communications services (PCS) Spectrum Licenses, Gazette Notice no. DGRB-002-09. See MTS Allstream Comments filed May 29, 2009.

70. This approach would have a number of advantages. Bidders would have an improved licensing regime – cost-based annual fee per license, longer term licenses and high expectation of renewal – factors that can be incorporated into auction bidding. The longer license term would also reduce uncertainty surrounding changes to the licensing regime or license conditions on renewal. This would also be consistent with improving “clarity” in licensing processes as discussed above.

6.0 OTHER ISSUES

6.1 Research and development

Comments are sought on the continued need for the condition of licence requiring that licensees invest a percentage of their adjusted gross revenues in R&D.
(Auction Framework Consultation, Section 6.1)

71. MTS Allstream believes it is no longer necessary to include the R&D condition of license, as per our comments in the consultation on cellular and PCS license renewal.¹⁵

6.2 Tier areas for spectrum licensing

Comments are sought on the establishment of a new Tier level that would differentiate urban and rural areas or whether other mechanisms could achieve the same purpose more effectively.
(Auction Framework Consultation, Section 6.2)

72. The Department’s geographic “tiers” provide useful ways of aggregating markets over the country, particularly for mobile service. Given the historical licensing regimes – e.g. assignment of cellular licenses to individual incumbent phone companies – there is a patchwork of operators and license types across Canada. This patchwork will further develop. As a result of the AWS auction there are a number of entrant carriers that have spectrum on a regional basis.
73. On the other hand, one weakness of the tiers is the inclusion of both urban and rural, as well as remote areas in the same license. This is the case both at the “higher level” tiers

¹⁵ Consultation on Renewal of Cellular and Personal Communications services (PCS) Spectrum Licenses, Gazette Notice no. DGRB-002-09. See MTS Allstream Comments filed 29 May 2009.

- e.g. the Tier 2 license for most Provinces covers the entire Province – as well as the more granular Tier level.
74. For example, the Tier 4 licenses that cover core urban areas include more population than Statistics Canada includes in the “Census Metropolitan Areas” (CMAs).¹⁶ This added non-CMA population is essentially rural in nature, otherwise Statistics Canada would have presumably included them in the CMA, which is the urbanized area.
75. Dividing up tiers into rural and urban areas would thus require a complete new set of tiers. This may be necessary for a new spectrum award in order to incent small bidders to participate.
76. It should also be kept in mind that there are varying degrees of what is “rural” in a country as vast as Canada and the degree to which areas are served. The many small rural communities “dotting” Southwestern Ontario, with their proximity to urban centres such as London, Kitchener/Waterloo, Windsor or Hamilton, are clearly quite different from a network deployment perspective from remote communities such as, for example, Thompson or Kuujjuaq. It is 900 km by road from Thompson to Winnipeg, and Kuujjuaq does not have road access to southern Quebec. Connecting remote communities is a more daunting challenge in many cases compared to building out rural areas that are in reasonable proximity to the major markets.
77. If there is a specific need to address coverage of existing services for remote areas, to address build-out for areas that are underserved or not yet serviced at all, it may be better for the Department to deal with that specifically, for example, by using a single-bid first-price process as discussed above.
78. Bidders could include the current incumbents that hold licenses in the tiers covering the targeted remote areas or other parties. If the winner is not one of the current incumbents, then the licenses of the current incumbents would be modified – or a sub-

¹⁶ Industry Canada uses 2001 census figure for the license Tiers. The Toronto T4 area has 5.6M population, whereas the StatsCan CMA census figure for 2001 includes only 4.6M. For Vancouver the T4 includes

license created – to accommodate the new portion of the license defined by the area in question. This is conceptually similar to the approach the Department uses with the New Party Cellular policy and would not require the creation of a new set of license tiers.

79. For new spectrum such as BRS or 700 MHz, the Department would not want to be in a position of deciding what spectrum would see successful deployment in different parts of the country, and whether this would be via small bidders, other entrants or incumbent carriers in other bands. Combined with other mechanisms – e.g. aggregation limits, set asides, etc. – to ensure equitable access to spectrum, the Department would have to consider a set of rural tiers to enable full realization of covering all of Canada with access to mobile broadband services and capabilities.

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