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***Filed Electronically***

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

Dear Sir/Madam:

Re: Gazette Notice No. DGRB-001-09 – Consultation on Revisions to the  
Framework for Spectrum Auctions in Canada

1. Attached are the comments of Saskatchewan Telecommunications (SaskTel), in response to the *Canada Gazette* Part I notice regarding the above referenced consultation, published April 11, 2009. SaskTel thanks the Department for this opportunity to provide comments and input into the consultation process.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Hersche". The signature is fluid and cursive, written in a professional style.

Robert Hersche  
Director of Regulatory Affairs  
AM/nb

Attachment

# SaskTel Comments:

Canada Gazette Notice DGRB-001-09

Consultation on Revisions to the  
Framework for Spectrum Auctions  
in Canada

June 15, 2009

## INTRODUCTION

Saskatchewan Telecommunications (“SaskTel” or “the Company”) is pleased to provide this response to Gazette Notice DGRB-001-09 “*Consultation on Revisions to the Framework for Spectrum Auctions in Canada*”, dated April 11, 2009 (“the Consultation”).

SaskTel commends Industry Canada (“the Department”) for providing an opportunity for the telecommunications industry to submit comments on the questions raised in the Consultation. The issues raised include spectrum regulation principals and guidelines, and policies involving long term spectrum licences affecting a number of different services.

SaskTel recognizes the importance of wireless telecommunications services and broadband services as a key enabler for economic growth, and the increasing significance of Internet connectivity to business and residential users. Businesses need reliable broadband Internet access to survive in today’s marketplace. Enhanced Internet connectivity is also having an enormous social benefit to consumers, allowing more and more people to become more connected to their communities.

SaskTel fully supports the Canadian Wireless Telecommunications Association (CWTA) submission in response to this same Gazette notice. The SaskTel response will provide further clarification of SaskTel’s position on the questions raised in the consultation.

Below SaskTel offers our responses to the specific questions raised by the Department in the consultation. The numbering of the document corresponds to the numbering of the consultation paper.

## SASKTEL RESPONSE TO REQUEST FOR PUBLIC COMMENTS ON REVISIONS TO THE SPECTRUM AUCTION FRAMEWORK IN CANADA

### *2. Spectrum Management in Canada*

***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.***

SaskTel agrees that the guidelines for spectrum management given in the Department's 2007 Spectrum Policy Framework for Canada are the proper principals to use in the establishment of spectrum management policies. SaskTel agrees with the enabling guidelines below as given in the Consultation:

- 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:
  - permitting the flexible use of spectrum to the extent possible;
  - harmonizing spectrum use with international allocations and standards, except where Canadian interests warrant a different determination;
  - making spectrum available for use in a timely fashion;
  - facilitating secondary markets for spectrum authorizations;
  - clearly defining the obligations and privileges conveyed in spectrum authorizations;
  - ensuring that appropriate interference protection measures are in place;
  - 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.

### 3. 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.***

#### 3.1 Types of Auctions

SaskTel has participated in previous simultaneous multiple-round ascending (SMRA) auctions held by the Department. The SMRA auction format has worked very well. We feel it is the best format to use when there is expected to be a high demand for the spectrum, a large number of bidders, and/or a large number of licences are being offered. Through the multiple round approach, the true value of the spectrum can be obtained as bidders decide how much they are willing to pay for each spectrum block. Bidders can also bid on multiple blocks or licence areas to suit their business requirements, and can change their bidding strategies if they so choose as the auction proceeds. Overall, SaskTel sees the SMRA format as a very efficient spectrum auction format, and recommends that the Department continue to use the SMRA auction format for cases where there are a large number of licences being auctioned, a large number of bidders, and/or high expected demand.

It is understood however, that there will be cases where other auction formats could be used for simplicity and lower cost. For cases where a small number of licences are being offered, a sealed bid format may be more appropriate. Two possible types of sealed bid auction formats are discussed in the consultation, namely the sealed-bid first-price auction format, and the sealed-bid second-price (Vickrey) auction format.

SaskTel agrees with the Department in that the sealed-bid first-price auction method would likely produce an inefficient outcome, either with the true value of the spectrum not being obtained, or the bidders paying too much for the spectrum. Of the two sealed-bid auction methods, SaskTel prefers the sealed-bid second-price (Vickrey) auction method, and suggests that the sealed-bid first-price auction method not be used.

Despite a preference for the Vickrey auction method versus the sealed-bid first-price format, SaskTel has concerns regarding the lack of price discovery inherent with any single round sealed-bid auction format. We believe that the only way to truly determine the value of spectrum licence(s) is through the use of price discovery, and comparing one's own bid(s) versus the bid(s) submitted by other participant(s). The true value of

spectrum licences can then be realized through a multiple round approach. It should be noted that for auctions where simplicity is desired, price discovery can be satisfied through a small number of rounds, as long as the number of rounds is fixed in advance.

SaskTel foresees little application for the clock auction method. Our understanding is that this auction method could be employed where the spectrum licence blocks being offered are equal in bandwidth, usability (i.e. the same usage conditions and restrictions), and therefore desirability to auction bidders. It must be noted that this is very rare in spectrum management these days. There are almost always conditions affecting one spectrum block and not adjacent blocks. For example, band edge restrictions are often tighter than block edge restrictions between blocks in the same band, often due to sharing requirements with adjacent band spectrum users. Coordination issues between adjacent band users are often enough to make band edge blocks less desirable than blocks in the middle of the band. SaskTel suggests that the SMRA method should be used instead of the clock auction method.

### **3.2 Auction Attributes**

In all but the simplest of auctions, preset combination or package bidding adds unnecessary complexity to the auction bidding process. SaskTel believes that the objectives of package bidding can be accomplished by prudent bidding strategies in an SMRA auction format. Bidders are free to bid on any combination of blocks or licences they desire, without the added complexity of adhering to, or having to consider as part of their bidding strategy, predefined bidding packages. Allowing auction participants the full flexibility on bidding on any combination of licences and blocks, as can be done in the SMRA auction, is the best method to allow the participants to meet their individual business needs.

SaskTel sees no requirement to impose anonymous bidding in upcoming spectrum auctions. Although possible retaliatory bidding has been noted in previous auctions, SaskTel has seen no evidence of signalling and coordinated bidding in previous SMRA auctions. The strict anti-collusion rules imposed prior to and during an auction are seen to be sufficient to prevent signalling and coordinated bidding. Any retaliatory bidding could be better handled through a post auction review of auction bidding practices by the Department.

### **3.3 Selecting the Appropriate Auction Format**

SaskTel understands and agrees that the choice of spectrum auction format heavily depends on the characteristics and the auction circumstances; the characteristics of the spectrum being offered; the number of potential bidders; and the complexity of the auction format, both from the bidder and the Department's point of view; and that all of these factors must be balanced when selecting the spectrum auction format to be used.

SaskTel believes that the SMRA auction process should be used whenever possible, as it provides flexibility for bidders and allows the true value of spectrum licences to be realized. Other alternative auction formats, as discussed in our submission, should only be utilized on an exception basis to address unique spectrum auction circumstances.

### **4. 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.***

SaskTel agrees with the Department's 2007 Spectrum Policy Framework for Canada, where it states "*market forces should be relied upon to the maximum extent feasible.*" We believe that the use of spectrum auctions to award satellite authorizations is the most effective way to utilize market forces in this licensing process.

As noted in the consultation, satellite orbital authorizations are unique in that they are much more heavily reliant on international coordination and processes, including discussions, negotiations, and approvals from the International Telecommunications Union (ITU). Prior to any proposed satellite authorization auction, it will be necessary for the Department to clearly identify the conditions of licence to be imposed on the auction winner. These conditions must include any implementation restrictions in terms of timeframes, or pre-requisite approvals. For cases where priority access to orbital locations by Canada would be lost by a delay in implementation, the Department would have to establish ahead of time the consequences or possible penalties for the failure of a satellite authorization auction winner to meet implementation and satellite launch deadlines. It would then be up to potential auction participants to evaluate the opportunities and all of the risks involved, and then decide if they wish to participate in the auction, and the prices they wish to bid to meet their business objectives.

Despite the complexities of the satellite authorization process, the benefits derived from using market forces to assign licences via an auction process outweigh the added complexity of an auction. (This assumes that a thorough pre-auction qualification process is used that includes agreement by the participants to adhere to licence conditions that must be imposed to address the unique needs and complexities of the satellite orbital licensing process.)

## **5. Licence 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.***

SaskTel notes that, as per the consultation:

*“Currently, the Framework provides that a spectrum licence issued via an auction will generally be valid for 10 years from the date of issuance, with a high expectation of renewal for a further 10-year term, unless a breach of licence condition has occurred (including any licence condition on implementation), a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises.”*

SaskTel emphasizes the critical need for certainty for renewal of spectrum licences. Wireless operators have made, and will continue to make, investments of billions of dollars in network infrastructure. Canadians now rely heavily on the services provided by the wireless operators on a daily basis. In order to continue to make the investments required to grow and evolve these networks to meet new and increasing customer requirements, licence holders need the certainty of expected renewal of the licences. Without the certainty of licence renewal and network operation beyond the end of the licence term, these network investments will not be made.

Therefore, SaskTel agrees with the Department's proposal for the continued inclusion of the phrase "high expectation of renewal" in spectrum licence conditions and Department policy documents.

SaskTel also recognizes that spectrum management requires, in some cases, reallocations and/or policy changes. Due to the heavy investments in network infrastructure, and the commitments to continue to provide essential wireless services to the residents of Saskatchewan, SaskTel requests that the Department notify incumbent licence holders of potential reallocations or policy changes as soon as they are identified, with a minimum notification of two years. This would allow incumbent operators the maximum opportunity to properly plan and manage any necessary changes.

### **5.1 Licence Term**

SaskTel notes the Department's proposal to continue with 10 year licence terms, but we believe this should be a minimum renewal term, where the licensee is in compliance with all licence conditions. SaskTel suggests that the Department consider longer renewal terms.

SaskTel notes that spectrum regulators in other jurisdictions are issuing and renewing spectrum licences for 15 and 20 year terms. In the case of bands which are well developed, for example the cellular and PCS bands, with extensive deployments by operators, a longer licence term is warranted. SaskTel recommends that, in these cases, the Department consider a longer licence renewal term, such as 15 or 20 years. This longer term will allow the established operators greater certainty and more flexibility in long term planning for technology evolution and continued network expansion. SaskTel notes that even with a longer licence term the Minister would still retain the power to revoke or modify a licence for just cause such as contravention of licence conditions.

### **5.2 Conditions of Licence**

SaskTel understands that conditions of licence could and likely will change to address changes in the industry, market, or regulatory situation. However, SaskTel requests that the Department continue their policy of making changes to conditions of licence after public consultation to allow input from all affected parties prior to the proposed changes.

### 5.3 Licence Fees

SaskTel notes as per the consultation that the Department

*“Believes that fees should be imposed for renewed licences and should be based on an estimation of the market value of the spectrum in question.”*

and

*“In general, fees established by the Department for spectrum authorizations have as their goal to promote the efficient assignment of resources and earn a fair return for the Canadian public for the privilege of access to spectrum, which is a public resource.”*

SaskTel believes that since the spectrum is a public resource, that the considerations for public benefit over ride other considerations, such as a fair return for the public.

Canadians have come to rely heavily on wireless telecommunications services for both personal and business needs. The social benefits of remaining constantly connected to family and friends at any time and almost anywhere are enormous. Businesses today could not operate competitively without the use of wireless networks. The public benefit must be a priority consideration.

A renewal fee based on spectrum market value will place a substantial financial burden onto existing incumbent wireless service providers. The service providers in turn will have to pass on these costs to subscribers, and/or reduce their investments in network infrastructure and builds. Passing on these high costs to subscribers will result in higher costs for subscribers. Reductions in network infrastructure investment will mean a lower quality of service from the network, and a slower introduction of new technologies and new services. Both of these outcomes will adversely affect the general public.

Therefore, SaskTel urges the Department to consider the adverse effects to the public of renewal fees based on market value, which for some licence areas will be very high, should the Department adopt renewal fees based on market value, and consider instead, for example, renewal fees based on spectrum management cost recovery.

It must also be noted that it is very difficult to accurately determine the market value of a spectrum licence. SaskTel urges the Department to use due diligence in their efforts to

arrive at a fair market value that takes into consideration all factors, including but not limited to population densities, spectrum congestion, differences in markets and geographies, and socio-economic factors. Without taking into account these differences, renewal fees for some regions may be out of alignment with true market value.

## **6. Other Issues**

### **6.1 Research and Development (R&D)**

***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.***

As noted in the consultation, the provision in the licence conditions to allocate 2% of wireless revenues to research and development (R&D) arose from the very early days of the cellular industry in Canada, at a time when the wireless industry in Canada was in its infancy. The intention was to stimulate the growth of the wireless industry.

The highly competitive nature of the wireless industry has resulted in a large amount of R&D expenditures, well above the minimum 2% resulting from the licence condition. The high level of R&D is required in order for wireless service providers, hardware and software vendors, and other suppliers to remain competitive. There is a growing demand from subscribers for new services and new applications, which is driving the industry now. As noted in the consultation, many of the large wireless service providers already spend much more than the minimum 2% on R&D activities just to stay competitive. SaskTel would continue our current wireless R&D investments, without any planned reductions, even if the minimum 2% R&D licence condition was removed.

In addition, the requirement to track and report these expenditures on an annual basis to Industry Canada, including the requirement for audited statements, does place a significant administrative burden on both the Department and the service providers.

SaskTel submits that artificial stimulation of the wireless industry through the now archaic 2% minimum R&D licence condition is no longer required. Active and growing wireless research centres have developed in Calgary, Montreal, Ottawa, Toronto, Waterloo, and Vancouver, which is clear evidence of the strength of the wireless industry in Canada.

SaskTel recommends that the Department remove this licence condition for all spectrum licences.

## 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.***

SaskTel understands the challenges involved in serving rural areas. The Company has a strong focus on serving rural areas of Saskatchewan, a focus that has existed at SaskTel throughout most of the Company's history. SaskTel currently has a commitment to provide broadband services to 100%, and wireless services to 98% of the population of Saskatchewan.<sup>1</sup>

From a business perspective, due to very low population densities there is a very marginal business case to provide services to rural areas, and every effort must be made to reduce capital and operational expenses in order to sustain that service. In many cases, it is very difficult to support the business case for servicing rural areas without including service to larger centres.

SaskTel does not believe that providing a separate tier for urban versus rural areas will help stimulate development of wireless services in rural areas. Access to spectrum and the cost of acquiring spectrum is only one obstacle to providing service to rural areas. Even when spectrum is acquired economically, there are other challenges involved such as high costs for network infrastructure in remote areas, high backhaul and transport costs, and the high cost of operating the network and providing customer service in these remote areas.

For spectrum acquisition, there are other mechanisms available to obtain access to spectrum in rural areas. Secondary markets for spectrum acquisition are available, including spectrum transfer and subordinate licensing arrangements. For the high costs of network construction and operation, various funding sources are available to help alleviate some of these costs.

One major difficulty with establishing an urban / rural licensing tier is the enormous difficulty of defining what urban and rural areas are. As found in previous investigations into urban and rural definitions conducted by the Department, one definition does not fit

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<sup>11</sup> SaskTel News Release, May 5, 2009 "SaskTel to invest \$220 million in its Saskatchewan network", <http://www.sasktel.com/about-us/news/current-news-releases/sasktel-invest-220million-in-network.html>

all cases, and one definition cannot be universally applied in all cases to create an equitable and fair rural/urban split that would meet the goals of the Department. For example, population densities vary widely in urban areas across the country, making it very difficult to apply a universal population density rule.

Another difficulty will be in vastly increased complexity with frequency coordination at service area boundaries. With an urban / rural tier split, the boundary becomes by definition very close to congested urban areas. With the present service area tiers, in almost all cases the service areas are defined away from major centres, making frequency coordination much simpler. It is anticipated that frequency coordination will become very difficult where urban / rural tiers are applied.

In summary, SaskTel does not support the idea of separate urban and rural licensing tiers due to the added complexity of implementing such an arrangement. SaskTel believes that an urban and rural tier structure will not by itself stimulate rural service development, and that other mechanisms are available and would be more effective.

## **CONCLUSION**

SaskTel is pleased to have had the opportunity to provide comments to the consultation. The Company has provided comments on spectrum management principals, input into various spectrum auction methods and principals, as well as input into how these auction methods are best employed to derive the appropriate value for spectrum licences.

Comments were provided on spectrum licence renewal issues, such as licence terms and conditions. Specific comments were also provided on continuation of the R&D licence condition, and on a possible urban / rural licence tier.