

# SaskTel Response to:

## Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services

Canada Gazette, Part I, February 24, 2007, Notice No. DGTP-002-07

Submission Document

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# Table of Contents

<b>EXECUTIVE SUMMARY:</b> .....	<b>3</b>
<b>INTRODUCTION:</b> .....	<b>4</b>
<b>COMMENTS OF SASKTEL:</b> .....	<b>6</b>
<b>PART I: PROVISION FOR THE ALLOCATION AND UTILIZATION OF THE VARIOUS BANDS TO BE AUCTIONED:</b> .....	<b>7</b>
<b>PART II: FURTHER CONSULTATION ON THE AUCTION:</b> .....	<b>8</b>
<b>3. MANDATED ROAMING:</b> .....	<b>12</b>
<b>4.1 SPECTRUM BANDS:</b> .....	<b>14</b>
<b>5. LICENSING PROCESS:</b> .....	<b>18</b>
<b>6.1.1 OPENING BIDS FOR AWS SPECTRUM AND FOR ADDITIONAL PC SPECTRUM:</b>	<b>21</b>
<b>6.1.2 OPENING BIDS FOR 1670-1675 MHZ:</b> .....	<b>21</b>
<b>6.2 PRE-AUCTION DEPOSITS:</b> .....	<b>21</b>
<b>CONCLUSION:</b> .....	<b>22</b>

## Executive Summary:

SaskTel commends Industry Canada for its initiative in publishing the consultation paper – “**Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services**”, (Gazette Notice DGTP-002-07). SaskTel fully supports Industry Canada in the allocation and designation of spectrum for Advanced Wireless Services, (AWS).

The allocation of spectrum is fundamental to extending the benefits of wireless communication to all, from large urban centers to remote rural communities within Canada. Mobile communication has a critical role to play in improving the health, wealth, education and social mobility of all Canadians.

To ensure that the benefits of mobile communication are available to everyone who requires them, SaskTel is proposing that the Department adopt the following measures in developing the auction framework for spectrum in the 2 GHz Range, including AWS:

- A market driven approach with regard to roaming, tower sharing and spectrum set-aside. SaskTel believes that artificial measures designed to enable new entrant access to spectrum or avoid the requirement of investing in the construction of a competitive network will distort the market and will not be in the public interest.
- Consideration of and reflection on market characteristics and consumer needs for all regions and markets. The needs of rural Saskatchewan do not always correspond to those of large urban centers. Regional wireless companies must be given consideration equal to that of national service providers.
- Adoption of aggregate and auction-specific spectrum limits in order to maintain a level playing field for established service providers and new entrants. Expanding network reach and delivering new and innovative services require adequate amounts of spectrum.

SaskTel remains an independent company, 100% owned by the Government of Saskatchewan. Over the last several years, SaskTel has made an enormous investment in connecting rural communities to the Internet and bridging the digital divide between those with affordable access to emerging technology and those with limited access. SaskTel has made a commitment to delivering advanced communication services on a timely basis to the residents of Saskatchewan. SaskTel is fully prepared and committed to using the spectrum in the 2 GHz range including AWS to provide new services and, more importantly, of using the spectrum to fulfilling our goal of increasing broadband penetration to residents throughout Saskatchewan.

## Introduction:

SaskTel commends Industry Canada for its initiative in publishing the consultation paper – “**Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services**”, (Gazette Notice DGTP-002-07). SaskTel fully supports Industry Canada in the allocation and designation of spectrum for Advanced Wireless Services, (AWS). The Department’s plan to allocate spectrum for advanced wireless services in order to keep Canada in step with wireless industry developments within the United States and Europe is timely. It is clear to SaskTel that our customers require solutions from applications that utilize ever-greater bandwidth capacity. The trend towards new and innovative services such as fourth generation cellular, multimedia and broadband Internet services requires that SaskTel acquire additional spectrum in order to fully meet the needs of our customers.

Wireless communications represents one of the most important technological developments of the past twenty-five years, producing significant benefits for consumers and the Canadian economy as a whole. The mobile phone offers a uniquely personal way in which to connect with the world and is the only device capable of both receiving and generating information, communication and entertainment content wherever a person may be. It is imperative for the long term prospects of Canada that the wireless industry ensures that businesses and consumers, whether located in large urban centers or rural communities be able to access fully the capabilities of this technology.

SaskTel fully supports the Department’s initiative to harmonize AWS allocation and spectrum utilization policies with those of the Federal Communications Commission, (FCC). Such harmonization will allow equipment vendors to develop products that can be marketed in Canada as well as the United States without significant modifications. The result should be lower costs to Canadian service providers and, ultimately, to Canadian consumers.

Other countries are harmonizing the specific spectrum bands allocated to advanced wireless services. Harmonizing the spectrum bands devoted to advanced wireless services across nations will produce larger benefits than assigning the same amount of aggregate spectrum using different bands. Canadian wireless customers will be able to receive mobile services while traveling outside Canada and consumers based outside of Canada will be able to operate more efficiently in this country.

While commending the overall trend to global harmonization, SaskTel does wish to point out that the Canadian wireless industry is unique, and in some cases requires a uniquely Canadian solution, different from both a United States and European solution; one that best serves the needs of the Canadian consumer. As

a network provider in a largely rural area of Canada, SaskTel understands better than anyone the challenges of Canada's large land mass and low population density and the need for unique solutions in meeting the needs of consumers and businesses. From this perspective, SaskTel is pleased to be given the opportunity to respond with our input to the issues and questions presented within the Industry Canada consultation paper.

SaskTel offers this response in order to clarify our position concerning certain issues raised in the consultation paper. To this end, for ease of reference, this response uses the section numbering system contained within the consultation paper.

## Comments of SaskTel:

In response to Canada Gazette, Part I, February 24, 2007, (Notice No. DGTP-002-07) **“Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services”**, SaskTel is pleased to be provided with the opportunity to provide our comments to Industry Canada as part of the public consultation process.

SaskTel commends Industry Canada for its initiative in soliciting input from the industry in developing an auction framework for spectrum in the 2 GHz range that is fair, efficient and competitive. The need to maintain a robust mobile industry in Canada begins with the process of effectively allocating and designating spectrum for Advanced Wireless Services. The long term prosperity of the Canadian wireless industry is dependent upon the industry’s responsiveness to the needs of Canadian consumers and the network operators whose investment in wireless technology provides service to these customers. The industry must be mindful that these customers include both businesses and consumers, within Canada’s major urban centers and within small rural communities.

It is widely acknowledged that wireless technology is the most cost effective method in delivering service to those who currently have limited or no access to broadband services. The opportunity for SaskTel to access AWS spectrum for deployment of digital broadband technologies, (e.g. CDMA EV-DO, EV-DO Rev. A, WiMax as well as future UMB and LTE systems) would enable SaskTel, with our large rural franchise area, to utilize wireless technology for Internet access. The extensive reach of SaskTel’s wireless coverage in rural Saskatchewan should be seen by the Department as evidence of SaskTel’s commitment to ensure that all Saskatchewan residents have access to emerging broadband services.

SaskTel believes that mobile communication represents one of the most important technological developments of the past twenty-five years. The development of the industry has had significant implications for the Canadian economy as a whole. Wireless technology has fundamentally changed the very nature of communications, allowing increased flexibility for businesses and consumers. From a technological perspective, wireless telecommunication is now a global industry. Mobile networks are connected and the technology is used in every region of the world. While the Canadian industry has benefited from rapid growth during the past twenty-five years, it now faces challenges that require a new approach to addressing and fulfilling regional requirements and specific customer demands.

The wireless industry can be expected to play an important role in maintaining productivity growth for all of Canada. Advanced wireless services, such as fourth-generation (4G) wireless, will need to be deployed to allow expanded types of service offerings and improved quality of service.

*For ease of reference, this response by SaskTel to Industry Canada will use the section numbering system contained within the consultation document.*

## **Part I: Provision for the Allocation and Utilization of the Various Bands to be Auctioned:**

### **Section 1.1 Discussion of the Changes to the Canadian Table of Frequency Ranges 1710 – 1850 MHz and 2110 – 2200 MHz.**

SaskTel supports the proposed changes to the Canadian Table of Frequency Allocations and the reservation contained in the new footnote C37 for possible future Advanced Wireless Service use. Mobile service providers will be able to put this spectrum to use in the introduction of new services including fixed and mobile broadband wireless services.

### **Section 2.1 Spectrum Utilization – Bands 1710–1755 MHz and 2110–2155 MHz.**

SaskTel fully supports Industry Canada's plan to release the 90 MHz Advanced Wireless Services band, which will harmonize the Canadian AWS band with that of the Federal Communications Commission's AWS allocation plan.

### **Section 2.2 Spectrum Utilization – Bands 1910–1920 MHz and 1990–2000 MHz.**

SaskTel fully supports Industry Canada's plan to release the lower half of this band, and the Department's plan for additional public consultations on potential future use of the upper half of the band.

### **Section 2.3 Spectrum Utilization – Bands 2020–2025 MHz and 2155–2180 MHz.**

SaskTel fully supports the use of new footnote C37 regarding the possible designation of AWS in these bands, subject to a future public consultation.

## Part II: Further Consultation on the Auction:

### Section 2.7 Addressing the Potential for New Entry

*In consideration of the present circumstances, the Department seeks comments on whether there is a need for measures intended to enable market entry in the AWS spectrum auction.*

SaskTel supports a market driven approach with regard to new entrants in the Canadian wireless industry. SaskTel believes that the measures suggested in the consultation paper to enable new entrants easier access to the wireless marketplace would serve only to distort the marketplace, and in the long term would be detrimental to the progress of the industry. The suggested measures will also likely be difficult to manage given the rapidly evolving industry in Canada.

In addition, SaskTel feels that there are sufficient sources of capital within the investment industry for new entrants to access in order to finance acquisition of spectrum in the proposed AWS spectrum auction on equal terms with the other auction participants.

At the same time, SaskTel believes that the spectrum auction framework must reflect regional market realities and the fundamental role that regional wireless companies like SaskTel have played in helping to build this country's ubiquitous, high quality and affordable communications infrastructure. Our spectrum policy and rules should be designed to allow these companies to continue to provide customers with access to next generation services in both rural and urban communities.

#### Section 2.7.1 Spectrum Set-aside

*The Department seeks comments as to whether a certain amount of spectrum should be set aside for new entrants. Comments should include a precise description of those who should or should not be entitled to bid.*

*Comments are sought on the amount of spectrum that could potentially be set aside.*

*Comments should include whether a single block should be set aside or if the set-aside could be broken up into 2 or more blocks.*

*Comments should stipulate how such provisions would be in the public interest, and provide supporting evidence or rationale.*

*Comments are sought on the implementation of the set-aside post auction and the duration of any conditions of license specific to the set-aside that may affect the license such as divisibility and transferability.*

SaskTel submits that the national spectrum framework must consider and reflect the market characteristics and consumer needs of all regions and markets. The needs of rural Saskatchewan do not always correspond to that of large Canadian cities.

It is our contention that there should be consideration of the realities of the telecommunications marketplace in Saskatchewan and creation of spectrum auction rules which will in fact facilitate the availability of new, innovative and affordable services for consumers. Provisions, such as a spectrum set-aside for new entrants, will impede regional wireless companies like SaskTel and their ability to continue to attain these fundamental goals.

Saskatchewan has less than one million residents spread over 652,000 square kilometers. This has led to a number of challenges in attaining our goal of the provision of services to all people, no matter where they may live. In order to accomplish this, SaskTel has had to develop the economies of scale which allow for the extension of new service development into areas outside of Regina and Saskatoon using a variety of delivery techniques. Wireless technologies and spectrum are becoming increasingly critical for cost-effective customer service delivery.

As a publicly owned entity, SaskTel has been directed by successive Saskatchewan governments to provide leading edge services to as many residents as possible within its fiscal capabilities. Saskatchewan, using SaskTel as a vehicle, has led the way in providing the most advanced communications services and solutions to our small, local and marginal markets including the most extensive cellular coverage in Saskatchewan and wireless technology to provide access to high speed internet service that is unparalleled in other rural and remote parts of Canada.

In the new telecommunications environment, network investment in wireless and broadband leads to consumer choice. We are committed to creating a strong vibrant infrastructure which will allow for broadband access to all Saskatchewan residents. Saskatchewan consumers expect and are demanding no less. The additional spectrum available through this auction has the potential to give SaskTel the ability to deliver higher bandwidth to rural and remote Saskatchewan as well as complete our broadband coverage plans throughout Saskatchewan. In our respectful opinion, the rules of the auction should not hinder SaskTel in attempting to fulfill our goals.

It is widely recognized that Saskatchewan is a secondary market for many national and international companies providing telecommunications services. Historically, other companies are rarely willing to deliver advanced

communications services on a timely basis to Saskatchewan residents, particularly those in rural and remote areas. Saskatchewan was one of the last parts of the country to receive cellular service. In fact, when notified that SaskTel would begin building a cellular network, the only other licenced cellular provider at the time (Cantel) asked the Saskatchewan government to delay launching the network. Even today, facilities-based cellular providers have poor wireless coverage in comparison to SaskTel, concentrating on urban and more lucrative areas of the province.

Regional players like SaskTel ensure that the entire market receives high-quality telecommunications services in a timely manner. The Saskatchewan economy, and in many instances the provincial quality of life, depends on maintaining a strong, stable base in telecommunications.

Put simply, SaskTel does not believe it is in the public interest to specifically set aside spectrum for new entrants. Given that history tells us that new entrants will be slow to roll out their services in Saskatchewan, disadvantaging SaskTel by imposing a spectrum set-aside for new entrants runs the risk of spectrum being underutilized to the detriment of Saskatchewan residents. On the other hand, SaskTel is fully prepared and committed now to use the additional spectrum to provide new services and, most importantly, of using it to fulfill our goal of increasing broadband penetration to residents in deep rural and remote Saskatchewan.

Moreover, SaskTel believes that potential new entrants will be able to obtain the necessary capital to fund acquisition of spectrum through the investment community to allow them to acquire PCS and AWS spectrum on an equal basis with other auction participants.

Finally, SaskTel also notes the Radio Advisory Board of Canada's (RABC) and the Canadian Wireless Telecommunications Association's (CWTA) comments regarding the difficulties encountered in other jurisdictions, specifically the United States and the United Kingdom with the imposition and management of spectrum set-asides. These measures proved to be fraught with difficulties and did not achieve the intended objectives.

### **2.7.2 Spectrum Aggregation Limit on Auctioned Spectrum**

*The Department seeks comments as to whether an auction spectrum aggregation limit should be placed on the amount of spectrum that can be acquired by a single wireless service provider and its affiliates.*

*Comments should include the amount of spectrum for the auction spectrum aggregation limit, to which bands it should apply and the duration.*

As noted earlier, SaskTel is seeing a trend emerge where our customers are demanding higher bandwidth services. SaskTel will be seriously hindered in delivering these future services to our customers in a timely fashion if we are unable to fairly and equitably acquire the required spectrum. In addition, our ability to leverage this spectrum to expand our network reach to remote areas of Saskatchewan will be impaired.

It is no exaggeration to say that spectrum is the lifeblood of the mobile industry. Because spectrum is such a key asset for wireless service providers, and because there are limited opportunities to acquire such assets, SaskTel is recommending that Industry Canada choose to establish an auction-specific spectrum cap in order to maintain a level playing field for established service providers and new entrants. SaskTel believes it would be in the best interest of the Canadian wireless market to introduce spectrum aggregation limits to be placed on both existing wireless service providers and new entrants participating in the upcoming public auction.

SaskTel feels that a total spectrum aggregation limit of 60 MHz should be applied to combined AWS and PCS spectrum holdings, acquired either during or prior to the proposed AWS auction. This 60 MHz limit should be applied equally to any and all AWS and PCS spectrum licence holders.

In addition, a spectrum acquisition limit of 30 MHz should be applied to spectrum auction participants, limiting each and every auction participant from acquiring no more than 30 MHz of combined AWS and PCS spectrum during the auction process.

SaskTel feels these spectrum aggregation limits will serve to level the playing field amongst all wireless service providers. If SaskTel is unable to access adequate spectrum, SaskTel will be forced to adopt excessively expensive approaches to advanced wireless technologies – or will be unable to offer them at all.

SaskTel believes that 30 MHz of new spectrum is more than sufficient for new entrants to acquire for initial deployment of new networks within Canada, and is enough for established wireless service providers such as SaskTel to offer new higher bandwidth services to our customers. For example, the upcoming UMB technology, (previously known as EVDO Rev. C) requires 20 MHz (10 +10 MHz) of contiguous spectrum. Acquiring a maximum of 30 MHz will allow SaskTel to deploy UMB, and still retain some spectrum for additional growth.

### **3. Mandated Roaming:**

*The Department invites comments on mandating incumbent mobile wireless operators to offer roaming services – to both competing and non-competing Canadian carriers – to foster the development of competitive wireless communication services.*

*Comments are invited on the extent to which the lack of mandated roaming could be a barrier to entry into the wireless market.*

*Comments are sought on what services should be included in any mandated roaming and to what specific frequency band(s) roaming should apply.*

*Comments are sought on the mechanisms that would best implement the policy objectives regarding roaming.*

SaskTel believes that the imposition of mandated roaming is not in the best interest of the Canadian wireless marketplace.

Mandated roaming could discourage new entrants from building out their own mobile networks or simply concentrating their network investment in select urban markets. This could prove harmful to the Canadian wireless market by discouraging network operators that provide service to rural areas to limit or possibly eliminate further investment in these areas of the country.

SaskTel continues to make significant yearly investments in deploying a quality mobile network to remote areas of Saskatchewan. Networks remain capital intensive, with long payback periods especially in sparsely populated Saskatchewan. SaskTel requires assurance from Industry Canada that the investments SaskTel has made in rural markets are supported and that SaskTel is encouraged to make further investments in order to ensure that all residents within the province have access to wireless technology. SaskTel believes that Industry Canada needs to protect network investment in rural markets and support the further expansion of new services to all areas of Canada.

It is also not technically possible to roam between every wireless network due to differing technical standards. While the wireless industry players continue to upgrade and evolve their individual networks as best fits their own business cases, they should not be required to deploy additional technologies that they would otherwise not deploy, nor be required to maintain operations of obsolete technologies solely for the purpose of mandated roaming. If the Department were to adopt roaming provisions, then the actual cost to provide this roaming service should be used in establishing market prices.

It should be noted that roaming agreements are currently in place between major industry players. These voluntary roaming agreements between industry players are mutually beneficial to both parties, and were established for business reasons, rather than as a response to regulatory requirements.

SaskTel believes that new entrants in the wireless market place can successfully negotiate roaming agreements with other wireless service providers, with technically compatible network infrastructure, to the mutual benefit of both parties. SaskTel does not believe the imposition of mandatory roaming terms and conditions will benefit the new entrant, the established service provider, or the wireless industry in general.

## 4.1 Spectrum Bands:

### 4.1.1 The Bands 1710-1755 MHz and 2110-2155 MHz

*Comments are sought by the Department as to whether:*

1. *the band plan shown in Figure 1 should be adopted in Canada — if not, please provide specific alternative options and the rationale justifying your suggestion;*
2. *the Department should allow TDD operation in these sub-bands if they meet the conditions listed above — if not, please provide the rationale supporting your view.*

SaskTel supports Industry Canada in harmonizing these AWS bands with the United States. Harmonization with the United States is in the best interest of the Canadian marketplace. Wireless equipment vendors manufacturing equipment for the much larger US market could market that equipment in Canada, resulting in lower equipment costs for Canadian firms. The result would be lower costs to Canadian service providers and ultimately Canadian consumers.

In the interests of harmonization with the FCC, SaskTel does not support the AWS band plan proposed by Industry Canada. SaskTel believes utilization of the FCC band plan would be in the best interests of the Canadian wireless industry. A band plan compatible with that of the US would result in lower equipment costs from vendors, and reduced cross border frequency coordination issues. A summary of the band plan proposed by SaskTel is given in Figure 1 below.

**Figure 1:** *SaskTel Proposed AWS Band Plan, harmonized with FCC AWS band plan.*

Block Licenses	Pairing	Amount of Spectrum
A	1710-1720 MHz and 2110-2120 MHz	2 x 10 MHz
B	1720-1730 MHz and 2120-2130 MHz	2 x 10 MHz
C	1730-1735 MHz and 2130-2135 MHz	2 x 5 MHz
D	1735-1740 MHz and 2135-2140 MHz	2 x 5 MHz
E	1740-1745 MHz and 2140-2145 MHz	2 x 5 MHz
F	1745-1755 MHz and 2145-2155 MHz	2 x 10 MHz

For TDD operation in the lower band, (1710-1755 MHz), the FCC EIRP limit for base stations is 1 Watt. This effectively limits TDD deployments in this band to very low power systems with short range, or indoor operation. It is SaskTel's view that this restriction will severely curtail, if not eliminate, TDD deployments in the lower band. Any network operator acquiring spectrum and wishing to deploy TDD

technology will effectively only be using half of their acquired AWS spectrum. This is an inefficient use of the valuable AWS spectrum. More studies are required in order to find methods whereby TDD operations can co-exist with mobile stations operating with FDD systems.

It is unclear at this time if equipment vendors will offer TDD equipment in these bands. The relative costs of TDD compared to FDD equipment are also unclear. SaskTel is of the understanding that the 1 Watt FCC EIRP limit was imposed not to protect FDD operations, but to protect sensitive US Government operations in the adjacent bands. This situation does not exist in Canada. Therefore, SaskTel would recommend further studies and industry consultation to determine the potential extent of TDD deployments in the AWS bands, and to clarify the potential for interference to FDD systems from TDD operations.

#### **4.1.2 The Band 1670-1675 MHz**

*Comments are sought by the Department as to whether:*

- 1. the band plan as proposed should be adopted in Canada — if not, please provide specific alternative options and the rationale supporting your suggestion;*
- 2. the technological neutrality related to duplexing should be adopted in Canada — if not, please provide the rationale supporting your view.*

SaskTel supports Industry Canada's proposal to licence this band as one single block of 5 MHz.

SaskTel has no comment with respect to technological neutrality related to duplexing at this time.

#### **4.1.3 The Bands 1910-1915 MHz and 1990-1995 MHz**

*Comments are sought by the Department as to whether:*

- 1. the band plan as proposed should be adopted in Canada -- if not, please provide specific alternative option and the rationale supporting your suggestion;*
- 2. the standards for PCS should be applicable to this spectrum -- if not, please provide the rationale supporting your view.*

SaskTel fully supports the adoption of the band plan as proposed within the consultation paper. SaskTel believes that the band plan is appropriate, given the fact that the PCS spectrum is immediately adjacent to the existing PCS spectrum. SaskTel believes that the current RSS and SRSP standards for the existing PCS band can be adopted, with some slight modifications to protect services in adjacent bands.

#### 4.2.1 AWS Service Areas, 1710-1755 MHz and 2110-2155 MHz

*Comments are sought on the proposed tier sizes for AWS spectrum.*

*Comments are sought on whether the block and tier sizes given above will allow the entry of new carriers in the market.*

SaskTel supports a mixture of Tier 2, Tier 3 and Tier 4 service areas for the Advanced Wireless Services spectrum blocks. By adopting the use of smaller Tier 3 and Tier 4 spectrum block sizes, licensees can optimize their spectrum acquisition plans based on existing spectrum holdings to meet their individual business plans. The utilization of Tier 3 and Tier 4 service areas also offers the flexibility for both new and existing wireless service providers to choose their desired market(s). Those operators desiring larger service areas are offered the opportunity to acquire multiple Tier 3 and Tier 4 licences sufficient to cover their desired service area(s), or choose to bid on Tier 2 licence(s).

The proposed spectrum licence service areas for the proposed AWS blocks are shown in Figure 2 below. The service area tiers match the tiers utilized by the FCC, which should help reduce the complexity of cross-border frequency coordination.

**Figure 2: Proposed AWS Band Plan Block and Tier Sizes.**

Block Licenses	Pairing	Amount of Spectrum	Proposed Tiers	Number of Licenses
A	1710-1720 MHz and 2110-2120 MHz	2 x 10 MHz	4	172
B	1720-1730 MHz and 2120-2130 MHz	2 x 10 MHz	3	59
C	1730-1735 MHz and 2130-2135 MHz	2 x 5 MHz	3	59
D	1735-1740 MHz and 2135-2140 MHz	2 x 5 MHz	2	14
E	1740-1745 MHz and 2140-2145 MHz	2 x 5 MHz	2	14
F	1745-1755 MHz and 2145-2155 MHz	2 x 10 MHz	2	14

Depending on the technology chosen by the service provider, there may be definite advantages to acquiring a common frequency licence block over multiple service areas. This could be accommodated through post-auction licence transfers, and perhaps should even be encouraged by the Department through the development of post-auction policies.

By dividing the available AWS spectrum into smaller tiers, the Department will provide the necessary flexibility for all spectrum licensees, whether large or small,

incumbent or new, to develop and deploy services that meet their business objectives.

#### **4.2.2 PCS Expansion Service Areas, 1910-1915 MHz and 1990-1995 MHz**

*Comments are sought on the proposal of Tier 2 service areas.*

SaskTel agrees with the proposed Tier 2 service areas, providing compatibility with the Tier 2 service areas used for the adjacent PCS bands.

#### **4.2.3 1670-1675 MHz Service Areas**

*Comments are sought on the proposal of Tier 2 service areas.*

SaskTel agrees with the proposed Tier 2 service areas for the 1670 – 1675 MHz band.

#### **4.4 Adjacent Channel/Same Area Coordination**

*Comments are requested on technical considerations for AWS systems in the applicable bands.*

SaskTel supports coordination rules that are similar to the current PCS rules.

#### **4.5 Sharing Issues with Other Services**

*Comments are requested on technical considerations for sharing of AWS systems with other services in the applicable bands.*

SaskTel supports sharing considerations between AWS systems and Mobile Satellite Systems, (MSS) in adjacent bands, as noted in the RABC comments to the AWS consultation paper.

#### **4.6 Equipment Certification**

SaskTel supports the CWTA and RABC comments that relevant equipment certification specifications and documents be finalized before the spectrum auction begins.

## 5. Licensing Process:

### 5.3 License Term, Renewal and Implementation Requirements

*Comments are sought on the license term, implementation and renewal proposals.*

*Specifically, comment is sought on;*

- *the proposal to use a 10-year license term;*
- *whether an interim implementation requirement should be imposed;*
  - *if yes, respondents should provide a rationale and an explanation of the implementation parameter(s) the Department should consider, the time frame for such a measure and the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area);*
- *whether the renewal expectancy provisions and process are suitable;*
  - *if not, respondents should provide a description of the rationale for different approaches;*
- *whether requiring application for renewal 2 years before license expiry is appropriate;*
- *the means of determining compliance (e.g. technical measurement methods, affidavit, number of subscribers in area); and*
- *the provisions the Department should consider when a licensee is determined to not fully meet the renewal expectancy requirements (e.g. the revocation for part or all of the spectrum or geography).*

SaskTel has concerns regarding the proposed licence renewal requirements and the change to the licence renewal policy from “high expectation of renewal” to “may be renewed”.

SaskTel believes that a change in policy will create a high level of uncertainty in future network planning for wireless service providers, and create uncertainty within the industry investment community. The Department’s proposed wording raises the possibility of investments worth many millions of dollars becoming stranded and thus increases the risk profile of long term investments in the industry until a decision can be reached by the Department on the licence renewal policy

Although SaskTel agrees that spectrum licence usage requirements are needed, the guidelines used to determine compliance with the Department’s licence conditions regarding usage and implementation must be made clear to all spectrum licence holders at an early date. This would allow spectrum licence holders to establish long term plans to meet these requirements. Early assurance that the spectrum licence holders can meet the Department’s implementation requirements will help reduce investment uncertainties, and contribute to a more stable investment climate.

SaskTel does not believe interim implementation requirements should be imposed. SaskTel serves a very large rural area, and long term planning for spectrum usage in rural areas is dependent upon economic and market conditions. It will be difficult for any wireless network provider offering service in rural areas to create long term plans and guarantee implementation within, for example, five years after a licence is issued if the renewal policy has not been finalized prior to deploying the network.

The revocation or non-renewal of a spectrum licence could immediately create stranded investment for a wireless network provider, and/or create a significant financial hardship. SaskTel recommends that at a minimum, in cases where deployment requirements have not been met, the Department revoke only the part of the spectrum licence covering the unused spectrum and/or the unserved geographic service area. This would minimize any stranded investments for service providers that have only partially deployed wireless networks.

#### **5.4 Conditions of License**

*The Department seeks comments on the proposed conditions for the AWS, PCS expansion and 1670-1675 MHz spectrum bands.*

##### **Licence Term**

SaskTel supports the proposed 10 year licence term.

##### **Licence Transferability and Divisibility**

SaskTel supports Department notification, rather than Department approval, for licence transfers between existing AWS / PCS spectrum licence holders. The Department will have already completed eligibility assessments and verifications for all licence holders at time of licence issue. The licence transfer process could be made more efficient through the use of a Department notification process, accompanied by attestation statements from both parties confirming compliance to all applicable licence conditions.

For licence transfers, in whole or in part, to new licensees, (who do not hold any PCS / AWS spectrum licences), the established Department approval process should be followed to allow the Department to verify licensee eligibility.

## **Radio Station Installations**

SaskTel concurs with the Department's requirement that licensees must ensure that radio stations are installed and operated in a manner compliant to Industry Canada's Client Procedures Circular CPC-2-0-03.

SaskTel believes that the growing environmental movement, along with a growing potential backlash against the proliferation of radio towers on the landscape, will force the industry to maintain and expand the voluntary tower sharing which exists today. SaskTel believes that the imposition of mandatory tower sharing on the industry is not necessary.

However, should the Department decide to impose this obligation, the arrangements must take into account actual tower installation and modification costs and provide fair financial and access terms for both the tower owner and the collocating party. The terms and conditions must reflect actual tower and antenna maintenance costs and not artificially imposed terms that could lead to improper pricing.

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

SaskTel is recommending to Industry Canada that the 2% Research and Development investment requirement be eliminated. The wireless industry in Canada has reached a stage where investment in new services is in the best interest of service providers operating in Canada. New services and wireless applications are the future of the industry, and are constantly being created and developed. There are plenty of incentives for wireless service providers and equipment vendors to invest research and development funds into the development of these new services, applications, and new technologies to improve service delivery, without the imposition of mandatory funding requirements.

## **5.5 Post-auction Licensing Process**

*The Department seeks comment on all aspects of the proposed post-auction licensing process for AWS, PCS expansion and 1670-1675 MHz spectrum.*

SaskTel agrees with the Department's proposal to make unassigned spectrum licences available to the industry at a later date through an alternative process. SaskTel suggests the use of an "expression of interest" process, and possibly a public consultation process, to determine the demand for these licences.

### **6.1.1 Opening Bids for AWS Spectrum and for Additional PC Spectrum:**

### **6.1.2 Opening Bids for 1670-1675 MHz:**

## **6.2 Pre-Auction Deposits:**

*The Department seeks comments on the opening bids and pre-auction deposits for AWS licenses.*

SaskTel has no comment on the opening bids and pre-auction deposits for the Advanced Wireless Services auction.

## **Conclusion:**

SaskTel is pleased to have been able to provide our comments and input into the spectrum consultation process. SaskTel is a wireless service provider in Saskatchewan, with a mandate to provide broadband wireless services to residents of Saskatchewan, both urban and rural based. The new AWS spectrum is seen by SaskTel as a key enabler for fulfilling that mandate.

In our consultation response, we have provided comments to the Department which SaskTel believes will help create a fair and equitable framework for auctioning the AWS spectrum. The wireless industry in Canada is very competitive and will likely become more competitive in the near future. SaskTel believes our proposals strike a balance that is fair to both incumbent operators and new entrants to the wireless market as well as beneficial to the wireless industry as a whole. It is SaskTel's view that our proposed terms and conditions will allow new and existing wireless service providers ample opportunity to achieve their business goals and provide the broadband wireless services being demanded by businesses and consumers.