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Archived — Government Opts for More Competition in the Wireless Sector

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Toronto, November 28, 2007—The Honourable Jim Prentice, Minister of Industry, today released details on how the auction for Advanced Wireless Services (AWS (Advanced Wireless Services)) spectrum, to be held on May 27, 2008, will be conducted. Of the 105 megahertz (MHz (megahertz)) of spectrum to be made available, 40 MHz (megahertz) will be set aside exclusively for new entrants to bid on. The other 65 MHz (megahertz) will be available to all bidders. The spectrum being set aside amounts to less than 14 percent of the total mobile spectrum that will be in use after the auction.

"We are looking for greater competition in the market and further innovation in the industry. At the end of the day, our goals are lower prices, better service and more choice for consumers and business," said Minister Prentice. "That is why we are setting aside a portion of radio spectrum exclusively for new entrants into the wireless market."

Recent studies comparing international pricing of wireless services show Canadian consumers and businesses pay more for many of these services than people in other countries. These services are key to strengthening the competitiveness of Canadian business.

The decision to set aside spectrum for new entrants is consistent with measures taken in Canada in 1985 and 1995 to facilitate access to spectrum and market entry. It is also similar to measures taken in other countries with competitive wireless markets, notably the United States and the United Kingdom.

Spectrum is used by wireless providers to offer services such as video, music and Internet access over wireless devices such as mobile phones, much the same way a radio station emits its signal over the airwaves. On February 16, 2007, Industry Canada launched a public consultation on how best to conduct an auction process for the available spectrum. The 2006 Telecommunications Policy Review Panel (TPRP (Telecommunications Policy Review Panel)), launched by the previous government, also made recommendations on future wireless licensing.

"Having considered all of the comments received during our public consultation, we agree with the TPRP (Telecommunications Policy Review Panel) that measures should be taken to enhance competition in this market," said Minister Prentice.

"Spectrum is a scarce and valuable resource that is used by all Canadians. It is up to the government to decide how it is to be deployed, to best meet the growing and diverse needs of Canadians."

Further details on the policy framework for the auction can be found at <http://www.ic.gc.ca/spectrumauctions> (http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01714.html)

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Backgrounder—Advanced Wireless Services Spectrum Auction

1. Background

What are Advanced Wireless Services?

Advanced Wireless Services (AWS (Advanced Wireless Services)) promise access to a growing range of innovative wireless applications and enable the timely roll-out of next generation technologies like high-speed video and Internet, with faster access for cell phones, Blackberries and other hand-held devices. The availability of these services will accelerate innovation and choice in the wireless sector.

The U.S. (United States) completed an auction for AWS (Advanced Wireless Services) spectrum in 2006, and there was considerable interest by their telecommunications industry. Making this spectrum available in Canada will ensure the Canadian wireless industry remains in step with international developments.

What is Spectrum?

Wireless networks need access to the radio frequency spectrum (airwaves). Spectrum is divided into frequency bands and allocated to services. Some examples are the broadcasting, satellite and mobile services. AWS (Advanced Wireless Services) is a mobile service which means the consumer can be moving while using the device. Spectrum is a finite public resource made available by government through the issuance of licences. Licences for commercial spectrum suitable for use by mobile telephones are very much in demand and most recently awarded through the use of auctions.

Why Auction Spectrum Licences?

Auctions are an efficient licensing process for commercial spectrum licences. Each auction is preceded by a public consultation to establish the policy and licensing framework, auction design, technical requirements and licence conditions. In the AWS (Advanced Wireless Services) auction, the government is making available 105 MHz (megahertz) of spectrum that is comprised of 90 MHz (megahertz) of spectrum for AWS (Advanced Wireless Services), 10 MHz (megahertz) for the extension of the existing band originally licensed in 1995, and 5 MHz (megahertz) of spectrum in the band 1670-1675 MHz (megahertz). The 90 MHz (megahertz) of AWS (Advanced Wireless Services) spectrum is interesting at this time, as it is large enough to enable new entry in the wireless market. To provide a measure of

comparison, the mobile band which opened in 1985 is 50 MHz (megahertz) wide, and the mobile band which opened in 1995 is 120 MHz (megahertz) wide. Mobile services are transforming how we communicate, and this auction will provide additional spectrum to take it to the next level.

How was the AWS (Advanced Wireless Services) Policy Developed?

In February of 2007, Industry Canada released a paper called *Consultation on a Framework to Auction Spectrum in the 2 GHz (gigahertz) Range including Advanced Wireless Services*. This paper sparked a lot of debate in the telecommunications industry because it asked whether measures should be adopted to foster greater competition in the wireless sector.

The AWS (Advanced Wireless Services) consultation also included a "reply comment" phase, which gave an opportunity to challenge the positions and assertions of other parties. The deadline for reply comments was June 27, 2007. There were 60 submissions received including initial and reply comments. All comments have been posted on Industry Canada's Spectrum Management and Telecommunications website at: <http://ic.gc.ca/spectrumbauctions> (http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01714.html).

2. Policy Objectives

Canada's Spectrum Policy Framework, published in June of 2007, sets as the government's primary goal to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource. Radio spectrum is a finite and valuable public resource which must be managed in the best interest of Canadians. The auction of licences for mobile spectrum such as AWS (Advanced Wireless Services) is an infrequent and important opportunity and must take into account the best interests of Canadian consumers. The government's role is to help foster a healthy and competitive telecommunications market that encourages and rewards innovation, and from which consumers will benefit the most.

Industry Canada must determine whether market forces alone are sufficient to achieve its policy objectives or whether specific measures are appropriate at this time. Specific measures that have been used in previous auctions in Canada and by other countries around the world include: determining who is eligible to enter the auction, setting aside spectrum for new entrants, establishing a spectrum cap to limit spectrum dominance, mandating roaming and service roll-out obligations. The

department must also consider the implications of the current AWS (Advanced Wireless Services) auction for the broader telecommunications industry and for the information and communications technologies industry (ICT (information and communications technologies)).

The Government of Canada has decided to set aside AWS (Advanced Wireless Services) spectrum for new entrants, in order to foster more competition in the wireless market. The goal is lower prices, more choice and increased innovation for consumers. The government believes that new entry will further enhance competition, not only in the wireless market segment, but across all telecommunications markets in Canada providing new products needed to keep Canada at the forefront of innovation. Having low cost for data transmission and state of the art wireless devices are important to Canada's competitiveness. The measures being taken are intended to ensure an opportunity for entry into the marketplace. The department is satisfied that the potential benefits of new entry warrant these measures. The wireless market, and in particular consumers, can benefit from further competition which strengthens Canada's ability to rely on market forces to the maximum extent feasible. Consequently, the department is: setting aside 40 MHz (megahertz) of AWS (Advanced Wireless Services) spectrum for new entrants; mandating in-territory roaming for 5 years while new entrants build out their networks; providing an extension of a further 5 years for national new entrants provided that roll-out obligations are met; mandating out-of-territory roaming for at least the 10-year licence term; and mandating antenna tower and site (including roof-top) sharing and to prohibit exclusive site arrangements for all radio and spectrum licensees.

In Canada, measures to ensure competition have previously been used for licensing mobile spectrum. Spectrum was set aside in the 1985 licensing of cellular radio, and spectrum caps were chosen to enable new entry in the 1995 Personal Communications Services (PCS (Personal Communications Services)) licensing process. Roaming was made a condition of licence for the cellular licensees who acquired PCS (Personal Communications Services) spectrum in 1995. Other countries have used similar measures to foster competition or ensure new entry, notably the United Kingdom, Australia and the United States.

3. Roaming

Roaming enables subscribers of a service provider to obtain services from another provider when travelling from one geographic area to another. This increases the functionality of mobile devices for the consumer. Roaming can also be a means of accelerating market entry by allowing new entrants to roam on existing wireless networks for a fixed period of time while they build out their own wireless networks.

The United States has taken wide-ranging measures to ensure roaming. Recently, the Federal Communications Commission (FCC (Federal Communications Commission)) in the U.S. (United States) has mandated automatic roaming, as they found that regional wireless providers were unable to negotiate roaming with the national service providers. Many countries in the European Union have also mandated roaming as part of their licensing processes for additional spectrum. Such measures are sometimes needed to ensure consumer benefits while recognizing the competitive nature of the wireless industry.

4. Antenna Tower and Site Sharing

Antenna tower and site sharing is a method of alleviating concerns about building new antenna towers. These concerns can include the impact of towers on environmental and local land-use requirements. As suitable antenna sites become increasingly scarce and strategic, competition issues arise as well. Two independent groups, the Telecommunications Policy Review Panel and the National Antenna Tower Policy Review recommended that tower sharing be required. The government agrees that the time has come to mandate the sharing of these supporting structures.

Additional information on the tower approval process can be found on Industry Canada's Spectrum Management and Telecommunications website at <http://www.ic.gc.ca/antenna> (http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01702.html). See also the Health Canada and Industry Canada FAQ (frequently asked questions) on Radio Frequency Fields at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html> (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>).

5. The Wireless Industry in Canada

The Canadian telecommunications sector is a \$36.1 billion industry. The wireless sector is the fastest growing segment of the telecommunications industry, generating \$12.7 billion in 2006, an increase of 15.2% from 2005. Revenue growth stemmed from an 10.2% increase in subscribers. Wireless services are now available to 98% of Canadians, despite a wireless footprint that covers only approximately 20% of Canada's geographic area.

The cost, features and availability of wireless services affect a large portion of the public. According to the latest report from the Canadian Radio-television and Telecommunications Commission (CRTC (Canadian Radio-television and Telecommunications Commission)), there are now 18.7 million wireless subscribers in Canada (i.e. 58% of the population).

The three national service providers (Bell Canada Enterprises, Rogers and TELUS) continue to dominate the wireless market, with 94% of subscribers and 95% of the revenues according to CRTC (Canadian Radio-television and Telecommunications Commission) reports. A chart showing commercial mobile spectrum holdings and the spectrum to be auctioned is included as Annex A.

6. Wireless Pricing in Canada Compared to Other Countries

While international price comparisons are challenging, most publicly available studies suggest that prices in Canada are not as competitive as they could be. In particular, there appears to be a consistent view that prices charged for very high use packages and for data (Internet) services are relatively high in Canada. For example:

- The OECD (Organisation for Economic Co-operation and Development) Communications Outlook 2007 compared wireless prices in 30 countries. They found that the service package most comparable to what average Canadians use was more expensive in Canada than in eight other countries like the U.K. (United Kingdom), Sweden and Denmark. For other packages, Canada ranked 12th and 22nd. The report can be found on the Organisation for Economic and Co-operation Development website (http://www.oecd.org/home/0,2987,en_2649_201185_1_1_1_1_1,00.html).
- A recent study by SeaBoard Group points out that rates in the U.S. (United States) and Europe, for either unlimited wireless plans, or limited wireless

data plans are about half the cost of the same services in Canada. The Seaboard report can be obtained for a fee at <http://www.seaboardgroup.com> (<http://www.seaboardgroup.com/main/index.php?option=content&task=view&id=705&Itemid=171>).

- Recent media reports have looked at what it would cost Canadians to operate the new i-Phone and found that wireless data service rates in Canada are almost twice the amount paid in the U.S. (United States), Germany and the U.K. (United Kingdom), where i-Phones prices range from \$60 to \$68 U.S. (United States) A comparable service package in Canada would cost between \$133 and \$160.

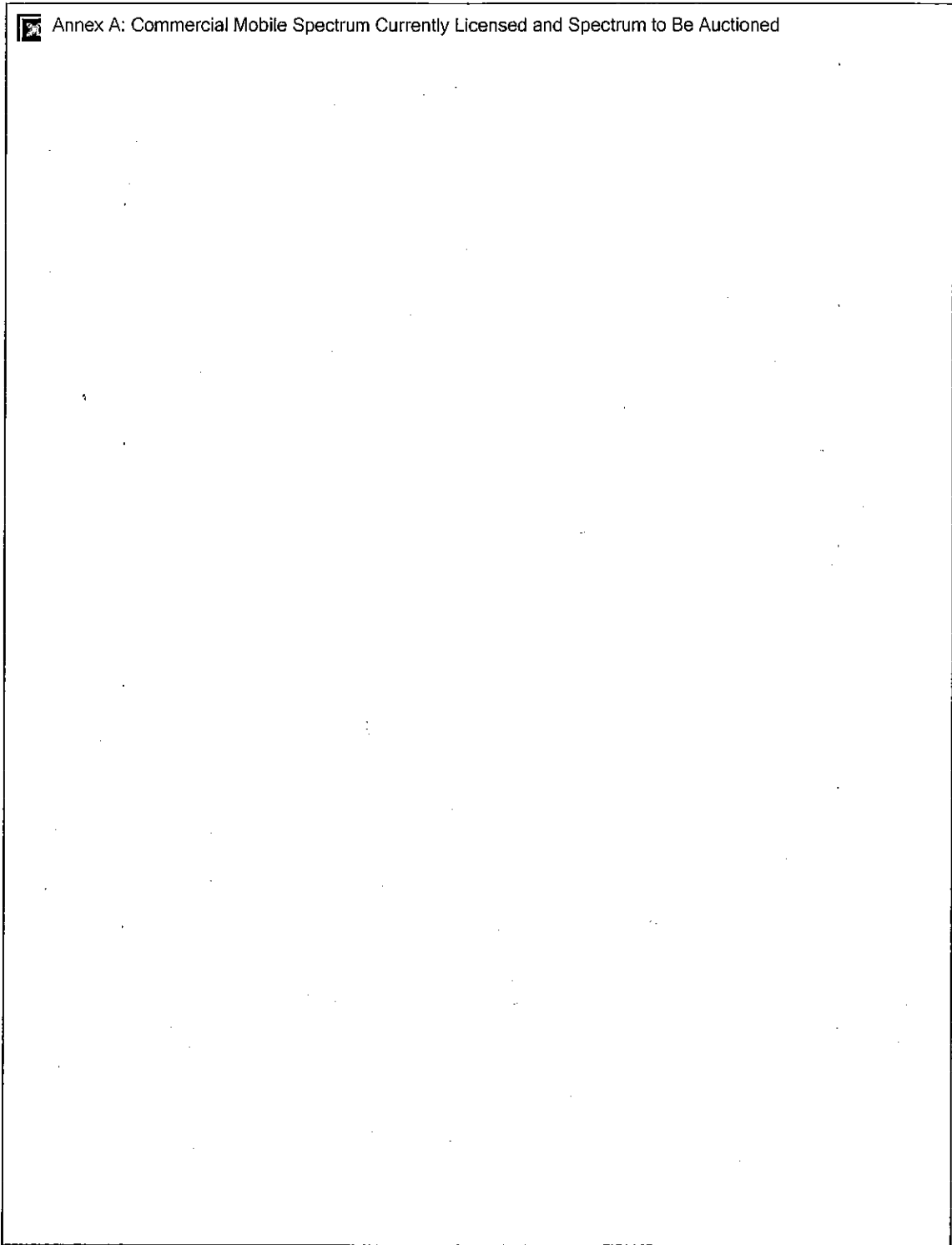
7. Future Spectrum Auctions

Mobile spectrum suitable for consumer electronics like mobile phones and similar devices is harmonized with other countries to provide the economies of scale needed to reduce prices for equipment used by service providers and wireless consumers. This type of spectrum comes available only at certain times, usually when standards organizations reach agreements which allow for the mass production of equipment. Industry Canada is continuously looking at ways to enhance spectrum use and reallocate existing spectrum resources to make them more useful.

For example, the government is converting analogue TV (television) broadcast spectrum to digital TV (television). This will result in some spectrum becoming available for flexible use, including mobile services. This spectrum is expected to become available for auction by 2011. Transitions like these take time, and the department will consult the public as appropriate.

8. Further Information

Additional information can be found on Industry Canada's Spectrum Management and Telecommunications website at: <http://ic.gc.ca/spectrum> (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/home>).



Date modified:

2015-04-20