February 28, 2011

Manager, Mobile Technology and Services
Engineering, Planning and Standards Branch
Industry Canada
300 Slater Street
Ottawa ON K1A 0C8

Dear Sir:

RE: SMSE-018-10 – Consultation on a policy and technical framework for the 700mhz band and aspects related to commercial mobile spectrum

The Government of the Province of British Columbia (the “Province”) is pleased to provide comments to Industry Canada in response to the consultation paper referenced above. Our comments have been jointly prepared by Emergency Management BC (EMBC), within the Ministry of Public Safety and Solicitor General, and the Office of the Chief Information Officer (OCIO), within the Ministry of Citizens’ Services.

The Ministry of Public Safety and Solicitor General (PSSG) works to maintain and enhance public safety and security in every community across British Columbia. Within the PSSG, EMBC ensures the safety and economic vitality of B.C.’s communities through a variety of programs and is committed to advancing integrated public safety planning and response in the province by coordinating planning and response capabilities among local governments, First Nations, provincial ministries, federal agencies and other public and private sector agencies.

EMBC represents the Province in F/P/T emergency management matters through its participation in SOREM (Senior Officials Responsible for Emergency Management) and has been actively involved in the development and recent approval of the Communications Interoperability Strategy for Canada (CISC) and its associated Action Plan. As identified in the Action Plan, EMBC is establishing a Provincial Interoperability Coordinator function that will coordinate development of interoperable public safety communications within the province.

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The Ministry of Citizens’ Services assumes a leading role to ensure excellence and innovation in the delivery of government services for the citizens of B.C., and enables the public service to provide effective and accessible services. Within the Ministry, the OCIO is the government’s chief IM/IT strategist; the OCIO plays a leadership role in promoting and guiding the management of information as a strategic business asset, and supporting technology infrastructure as a key component of business transformation. This includes collaborating with ministries, broader public sector organization, communities and private sector suppliers on cross-government initiatives in support of government’s objectives. One of the important government objectives is to stimulate the extension of advanced Broadband services to the citizens living in rural and remote locations in B.C.

Industry Canada’s spectrum consultation and subsequent auction is very timely as the Province moves forward in implementing its recently announced e-government strategy of “Citizens’ @ the Centre-B.C. Government 2.0”. The availability of spectrum will help in the transformation of citizens’ access to their government and public services. The spectrum also plays an important role in initiatives like “The 21st Century Learner”, and TeleHealth, as well as providing economic development opportunities.

British Columbia has a land area of 944,735kms² and 27,000kms of coastline. Of the province’s land mass, 75 per cent is mountainous, 60 per cent forested, and only about five per cent is arable. The 700 MHz broadband spectrum is particularly suited to our geographic and demographic situation in B.C. due to its favourable propagation characteristics in comparison to other bands. For this reason the majority of our response will focus on the 700 MHz band.

The Province feels that this spectrum allocation may address the frequency exhaustion many service providers in dense urban markets appear to be experiencing, as well as providing the opportunity to assist in bringing services to rural and remote areas of British Columbia.

The fact that a number of low density rural and remote areas have neither competition, nor mobile wireless services, indicates that there is a marginal or extremely difficult business case for service providers. These same areas also lack broadband services.

In our submission, we introduce the concept of allocating spectrum blocks on a geographic basis that exclude urban centers. We feel spectrum blocks of this characteristic should be made available to proven sustainable small to medium Internet Service Providers, in a manner that would result in spectrum costs that are representative of the local business case. These small to medium sized Internet Service Providers have a proven track record of running successful and sustainable services in challenging rural and remote areas. There are currently over 100 of these service providers in B.C. providing Internet services to rural and remote citizens at prices similar to urban markets.

We also suggest that the mechanism to allocate spectrum to small and medium providers should not be through an auction process but instead should incorporate an affordable license fee, with a reasonable “use it, or lose it” caveat. We feel that a spectrum allocation program of this nature would stimulate greater service availability to citizens in rural and remote areas.
British Columbians have identified affordable high-speed telecommunications services as an essential component of a modern economy; affecting their ability to work, operate businesses, acquire resources, receive government services, live safely, and interact socially.

The consultation paper also includes a number of questions focused on public safety use of broadband spectrum. In preparing its response to these questions, the Province has consulted with a wide range of public safety and public service stakeholders in B.C., including other provincial ministries, first responder agencies, critical infrastructure providers, designated Emergency Communications Corporations¹ and medium and small Internet service providers. Although we believe our response accurately reflects the consensus views of all stakeholders consulted, our response should not be construed as making any representation on behalf of organizations external to the government of B.C.

Our consultation with these stakeholders in B.C. has clearly indicated that:

- Demand from public safety and public service agencies for wireless broadband services and the mission critical applications they support will experience growth rates similar to those observed in the broader marketplace (i.e. demand from consumer and business users);
- Commercial wireless broadband services cannot be relied upon by public safety agencies in times of crisis because of the degradation those services experience as a result of excessive demand from commercial users;

The Province, therefore, urges Industry Canada to assign dedicated 700 MHz spectrum for the purpose of building a national, interoperable wireless broadband network for the use of public safety and public sector organizations – those having a mission and mandate to provide critical services for the protection of life and property.

As will be discussed further in the consultation submission, this spectrum assignment must be:

- Sufficient to support projected future bandwidth requirements in major emergency events – a 20 MHz allocation is required based on the analysis discussed in our response;
- Consistent across Canada to enable the construction of a national, interoperable “system-of-systems” based on regionally- or provincially-defined business models and national coordination;
- Harmonized with similar assignments in the United States to enable cross-border interoperability and continental economies of scale in equipment purchase;
- Subject to a governance model that ensures the public safety community can directly control the prioritization and use of spectral and network resources, in the absence of commercial influences;
- Licensed for public safety and mission critical public service use at minimal or no cost – in particular, this spectrum should not be licensed through an auction process.

¹ This includes E-Comm, Emergency Communications for Southwest British Columbia and CREST – Capital Region Emergency Services Telecommunications. Both organizations are incorporated in British Columbia in accordance with the BC Companies Act and the Emergency Communications Corporations Act. See [http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_97047_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_97047_01)
We recognize that allocation of suitable spectrum is only one component of the development of a national wireless broadband network for public safety and that significant work will be needed, once the spectrum is allocated, to develop and implement the required funding and operational models. However, we also believe that the fundamental enablers are in place in Canada and B.C. that will allow such a network to be built and sustained in the long-term:

1. A national governance framework as outlined in the Communications Interoperability Strategy for Canada;
2. The Emergency Communications Corporations Act in B.C.

With the recent announcement by the White House\(^2\) of its Wireless Innovation and Infrastructure Initiative, the assignment of the D Block to public safety and the allocation of auction proceeds to support network construction seem likely. This announcement provides the Department with additional justification to harmonize the 700 MHz spectrum with the U.S. and apply spectrum allocation mechanisms that will facilitate the development of wireless broadband networks for public safety and remove barriers to spectrum acquisition by organizations providing broadband services in rural and remote locations in Canada.

It is also worth noting that the U.S. federal commitment to Wireless Innovation and Infrastructure Initiative includes substantial funding and resources (~$5B) for diminishing and resolving the lack of broadband citizen access in rural and remote locations (often described as the Digital Divide). The stated goal is to insure connectivity is available to 98 per cent of US citizens. Industry Canada may wish to investigate such a program for Canada, using the proceeds obtained through upcoming spectrum auctions.

Respectfully submitted,

Rebecca F. Denlinger
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Emergency Management British Columbia
Ministry of Public Safety and Solicitor General
Province of British Columbia

Dave Nikolejsin
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Province of British Columbia

Attachment