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June 30, 2009

Mr. Peter Hill  
Director, Industry Canada Spectrum Management Operation  
300 Slater Street  
Ottawa, Canada  
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Dear Mr. Hill,

**Subject:        Gazette Notice DGRB-02-09 – Consultation on the Renewal of  
                  Cellular and Personal Communications Services (PCS) Spectrum  
                  Licences**

First Networks Operations Inc. is pleased to submit herewith its comments in reply to the submissions rendered in respect of Gazette Notice DGRB-02-09 – Consultation on the Renewal of Cellular and Personal Communications Services (PCS) Spectrum Licences.

First Networks appreciates the opportunity to participate in this proceeding and trusts that its views will be considered seriously by Industry Canada in its formulation spectrum licence renewal policy.

Yours truly,

Robert (Bob) Gowenlock  
Director, Regulatory and Carrier Affairs  
First Networks

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Reply Comments  
First Networks Operations Inc

**Canada Gazette Notice  
DGRB-002-09**

**Consultation on the Renewal of Cellular and Personal  
Communications Services (PCS) Spectrum Licences**

June 30, 2009

## **Introduction**

First Networks Operations Inc. (“First Networks” or the Company”) wishes to reiterate its views briefly regarding the state of spectrum licensing in Canada provided in its comments respecting DGRB 008-03 filed on May 29, 2009. First Networks is of the opinion that the spectrum licensing policies adopted and pursued by Industry Canada since the introduction of wireless service have served markets in rural and remote areas of Canada poorly. Although the department correctly notes that cellular and PCS service is widely available in Canada, reaching 98% of the population and 20% of the geographic area, there are significant areas in Canada where wireless service is non-existent or the service fails to meet the ideal of having a choice of service providers.

First Networks notes that wireless service is available to nearly all Canadians. That does not mean however that 98% of Canadians have ready access to a choice of service providers or technologies. There are vast areas within the 20% of Canada’s geography that are serviced only by the incumbent telephone companies’ wireless services. In those areas customers are faced with a service provider that operates as a virtual monopoly. This affects both the range of services available and the other benefits that result from a competitive market.

First Networks further considers that the areas unserved by any wireless carrier are some of the places that would see that greatest benefits from the introduction of cellular and/or PCS services. The areas without service tend to be in remote isolated areas where residents are forced to travel long distances for many basic services. The lives of the residents of these areas would be greatly enhanced if wireless services were available to them. Specifically they would be able to be in touch with family and emergency services while travelling between centres in sparsely populated areas. In addition, access to modern wireless communications would undoubtedly enhance the economic opportunities available in remote and isolated areas

## **Spectrum Licensing Policy**

It has been Industry Canada’s policy to grant and maintain spectrum licences in a manner that allows the large incumbent licensees, Rogers and the incumbent telephone companies to build operate their networks as they pleased, i.e. where the companies have “determined that there is a viable and sustainable business case”. As long as service was provided to a majority of potential

customers, the department was apparently satisfied with the results. Although this policy failed to provide service or competitive service in some rural and remote areas, Industry Canada was content that the options for third party providers were sufficient and effective. The department appears to have held to this view even in absence of evidence that these options were achieving the objective of extending service in areas where the large companies did not determine there “was a viable and sustainable business case”.

First Networks considers that the department’s policy is based on out-dated premises with respect to the provision of wireless service. Specifically, Industry Canada apparently believes that wireless networks must be built out from high population density areas to low population areas to take advantage of economies of scale and scope. This is in fact how existing Canadian wireless networks have developed historically. Service was first provided in large cities, followed by smaller regional centres then smaller towns and the transportation corridors between them. As the population became thinner there was less and less incentive to provide service due to diminishing rates of return on the capital used to build out the network.

Industry Canada has appears to have accepted the notion that at some point in this expansion there will no longer be a business case to extend service and no further expansion and development is possible. First Networks agrees with this assessment as it applies to the existing centralized networks belonging to the large incumbent wireless companies. This business/network model means however that Canada must accept that there will be areas in the country where there will never be wireless service. However, First Networks does not agree that this model is the only alternative to extending wireless service into rural and remote areas.

First Networks believes instead that it is possible to make wireless service available even in very small communities. Its business/network model does not depend on a large circuit-switched central network requiring large capital costs. First Networks instead uses an Internet protocol (“IP”) based network with intelligence at the edge of the network. IP based networks are satellite friendly and make use of low cost off-the-shelf components to provide service at considerably lower cost than possible in the older networks. Such systems are widely available and are already in use in areas of the world that have similar characteristics to the low/dispersed population area such as those in northern and rural Canada.

First Networks has established to its own satisfaction that it is possible to build low cost, modern wireless networks in sparsely populated areas in Canada. Such networks offer a means of extending service to virtually 100% of Canada's settled population.

There are however several impediments to the expansion of competitive wireless service in Canada. First Networks believes that these impediments largely arise because of the failure to update spectrum management policy in the face of technological advances and a reluctance to view unused spectrum in large areas of the country as an indication of policy failure.

In its comments on DGRB 002-09 submitted on May 29, 2009, First Networks noted the problems with the department's policies to extend service to rural areas of the country. The Company is of the view that the use of secondary markets and the RP-019 policy are both deeply flawed mechanisms. Use of these mechanisms will not ensure the provision of service in unserved and underserved areas. It is not necessary to repeat First Networks comments on the problems with these mechanisms. The near absence of any successful use of these mechanisms is testimony enough of their inadequacy. In addition, even these ineffective mechanisms are not available for PCS spectrum.

Lack of available and useful spectrum is the most important impediment to developing viable third party service providers willing to extend service in rural and remote areas. As pointed out by Lynx Wireless in its May 29<sup>th</sup> comments, there are large blocks of dormant spectrum in northern Canada. Large carriers, those with deep pockets, are allowed under the current regime to purchase and hold spectrum in reserve virtually indefinitely. This situation allows the incumbent wireless carriers to keep the Canadian wireless market an effective duopoly, Rogers and the wireless operations incumbent telephone companies. This may contribute greatly to the economic well-being of the members of this duopoly but it does not increase the level of competitiveness in the Canadian wireless market or contribute to the other public policy goals of the department such as ensuring that all Canadians, even those in remote and isolated area have access to wireless services.

First Networks considers that public policy requires that Industry Canada not simply extend the terms of existing cellular and PCS licences for another 10 year term. The Company believes that extending existing licences in this way would simply fix in place a policy that has allowed spectrum to remain dormant and would amount to departmental acquiescence to leaving over half

a million Canadians without wireless service and a substantially larger number with access to only one service provider.

### **Recommendations**

Spectrum management policy requires a substantial and thorough policy review. This review should encompass the following elements:

- Should spectrum licences be maintained in areas where the licensee has not developed service over a substantial period of time?
- Is the third party process adequate to ensure that unused spectrum is made available to parties willing and able to provide service in unserved and underserved areas? If not what modification should be made to the secondary market and RP 019 mechanisms to ensure they are effective in producing their stated public policy goals. First Networks assume of course that any revised mechanisms would apply to PCS spectrum as well as cellular spectrum.
- Should the department adopt different policies in assigning spectrum between the densely populated areas of Canada and those rural and remote areas that are still waiting for service or competitive service?

First Networks believes that without a complete review of its spectrum licensing policies it would be inappropriate for Industry Canada to renew existing cellular and PCS licences on the same terms as have applied heretofore. First Networks suggests that existing licences be renewed only on a short term basis, for example by extending current licences for three years, to allow a policy review to take place.

First Networks thanks the department for the opportunity to provide its views on this matter.

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