

September 7, 2005

The Director  
Spectrum and Radio Policy  
Telecommunications Policy Branch  
Industry Canada  
1604A, 300 Slater Street  
Ottawa, Ontario  
K1A 0C8.

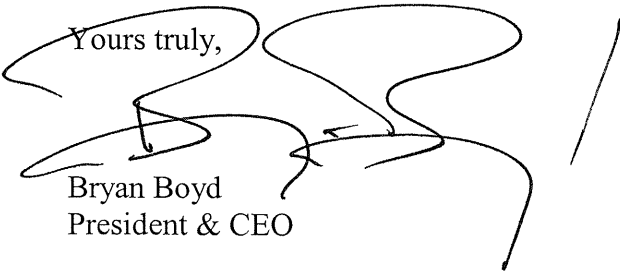
Dear Sir or Madam:

**Re: Submission to Spectrum Policy Review Consultation Paper**

Please find attached TeraGo's submission to the Spectrum Policy Framework Consultation Paper.

TeraGo would like to thank Industry Canada for the opportunity to present these views for consideration.

Yours truly,



Bryan Boyd  
President & CEO

Encl:

**Industry Canada – Radiocommunication Act**

**Consultation On A Renewed Spectrum Policy  
Framework For Canada And Continued  
Advancements In Spectrum Management**

**Canada Gazette, Part 1, May 14, 2005**

**Notice No. DGTP-001-05**

**Comments of**

**TeraGo Networks Inc.**

**September 7, 2005**

## **I Introduction**

TeraGo Networks Inc. welcomes the opportunity to submit these comments in connection with Industry Canada's consultation on a renewed spectrum policy framework.

TeraGo is a leading wireless broadband data communications provider to businesses and other organizations. Owning and managing its own network, TeraGo uses state-of-the-art broadband technologies to provide cost-effective, high performance Internet access, data services, web hosting and e-mail solutions. TeraGo has operations in British Columbia, Alberta, Manitoba, Ontario and Quebec. TeraGo's corporate headquarters are in Toronto, with additional operations based in Calgary. Further information is available at the company's website: [www.terago.ca](http://www.terago.ca).

TeraGo holds 70 spectrum licences issued by the Department in the 24 and 38 GHz bands. TeraGo is one of the very few licensees in these bands that has actually put the frequencies into operational use, as required by the Department when blocks in these bands were first auctioned in late 1999. TeraGo also uses unlicensed spectrum in the 2.4 and 5 GHz bands.

TeraGo is pleased to submit its comments in this proceeding. TeraGo is one of the few remaining competitors in Canada that is independent of an incumbent wireline or cable company. As the telecommunications market has become increasingly concentrated in Canada, the role of remaining independent operators such as TeraGo has become increasingly important in ensuring that consumers really do have a meaningful choice of competitive alternatives for telecommunications services.

In the following pages, we will focus on a number of spectrum policy areas that are of key concern to TeraGo at this time. The key message that we wish to convey is that Canada should proactively employ spectrum licensing as a mechanism to promote competitive entry and expansion in the telecommunications sector.

## **II Spectrum Licensing Should Promote Competition**

Radio spectrum is an important national resource and a key enabler of telecommunications. The growth of cellular/PCS services has demonstrated that consumers want the portability and flexibility that comes with wireless services. More recently, wireless email services and WiFi services have become increasingly popular, and for the same reasons of portability and flexibility. Although fixed wireless services have not generated the same public attention as have mobile services, the developments have nonetheless been impressive. Equipment has been developed for use in multiple bands. Operators, such as TeraGo, are building infrastructure based networks that customers value.

The Canadian wireless industry is now quite concentrated with three large national operators providing cellular/PCS services. All of these large operators are affiliated with large landline interests, either telephony or cable television. Their natural incentives is to accumulate additional spectrum resources. This can be positive when they seek to offer new services that cannot be delivered by conventional means. However, it can be negative when the spectrum is simply warehoused and thus unavailable from those operators that might deploy the spectrum to enable

competitive entry and expansion. Sometimes, both motivations are at work. Sometimes, it is difficult to detect which motivation is the primary one.

From a policy perspective, it is vitally important that regulators use spectrum licensing to foster competitive entry and expansion. Wireline infrastructure is too expensive and time-consuming to install, except in localized areas or by operators (such as cable companies and, some day, perhaps the electric distribution utilities) that can re-engineer their existing wireline facilities to handle new applications. Therefore, wireless technology, and the operators that employ that technology, are the most likely prospects to bring about widespread competitive entry in telecommunications.

The Department has historically been sensitive to this issue. It has designed a number of new licensing activities with the objective of accommodating new entry. For example, when PCS frequencies were assigned in 1996, the Department precluded incumbent operators from applying for the most desirable 30 MHz blocks. Rather, they were restricted to the less desirable (but still very valuable) 10 MHz blocks. Again, when the Department auctioned 24/38 GHz spectrum in 2001, it limited the amount of spectrum that each applicant could acquire, with lower limits for the ILECs.

Other countries have followed a similar route. The FCC has applied preferences for small business, minority controlled firms and other groups when assigning spectrum. The UK, as well, has designed rules to encourage new entry when assigning valuable spectrum. For instance when 3G spectrum was licensed in 2000, one large bandwidth licence was specifically reserved for a new entrant.

Accordingly, we recommend that the Spectrum Policy Framework specifically recognize the important role of spectrum licensing in enabling competitive entry. The Department should conduct licensing in a manner that encourages competition to the greatest extent possible. This approach should apply in the course of auctions, comparative selection processes, and the re-purposing of existing frequency usage assignments.

We also recommend that the large incumbent operators not be allowed to warehouse spectrum they have no realistic prospect of using. They have little incentive to voluntarily give up such spectrum. Yet other operators may well want that spectrum, and be in a position to make good use of it.

It is no answer to simply allow the sublicensing or free transferability of spectrum. The big spectrum-holders do not need the money that such activities could generate. Rather, their greater interest is to discourage potential competitive entry and expansion using the spectrum.

Another step that can be taken to properly employ spectrum as an enabler of competition is to ensure that those companies that are licensed to use spectrum indeed make use of it. For example, there have been examples of foreign-controlled companies acquiring spectrum at auction and where the company in question was not Canadian owned and controlled, had no realistic expectation of deploying the spectrum to provide services in Canada in the foreseeable future and moreover sat on the spectrum resource without activity for many years. One may well question the business plan of such a spectrum owner, but the fact remains that the spectrum has

become lost to Canadian commerce for an extended period of time. Although we believe that the Canadian ownership and control rules no longer make any sense and should be eliminated, as long as such rules remain in place, it would be better if such spectrum holders were not permitted to acquire spectrum in the first place, or were required to properly deploy the spectrum in a reasonable period of time.

Accordingly, we recommend as follows:

- (a) The spectrum policy framework should specifically recognize the key role of spectrum and the importance of employing spectrum licensing to enable competitive entry and expansion.
- (b) When any new spectrum licensing activity is contemplated, the spectrum regulator should adopt specific measures to promote competitive entry and expansion wherever possible. These measures should be disclosed in any public consultation that precedes the licensing activity.
- (c) The spectrum regulator should periodically review the spectrum holdings of the large incumbent operators, to satisfy itself that spectrum is being appropriately deployed and is not simply being warehoused.
- (d) The spectrum regulator should be diligent, both initially and on an ongoing basis, that spectrum is licensed to those that will put it to good use.

In order to operationalize the foregoing recommendations in the context of the Policy Framework, we propose the following changes to the Core Objectives in section 6.1.2 of the Consultation Paper and the Policy Guidelines in section 6.2.

Proposed Core Objective 2 endorses reliance on market forces and economic incentives in spectrum assignment. We recommend that this Core Objective be amended to specifically recognize the role of spectrum assignment in fostering competition. In this way, the Department can take steps, as it has done in the past, to promote competitive entry in suitable circumstances. Accordingly, we propose that Proposed Core Objective 2 be written as follows (with our proposed amendments underlined):

- (2) To promote economically efficient resource allocation and reliance on market forces and economic incentives to assign spectrum, while recognizing the role of spectrum assignment in fostering competition;

Proposed Policy Guideline 5 discusses the Department's approach to licensing spectrum. Consistent with our recommended change to Proposed Core Objective 2, we recommend that this Guideline be amended so to support the use of licensing as an enabler of competitive entry in suitable circumstances. We propose the following additional wording at the end of Guideline 5:

The Department will, where appropriate, design the licensing process with the goal of fostering market entry and competition.

Proposed Policy Guideline 12 sets out guidelines relating to the efficient usage of licensed spectrum. In the pursuit of this efficient usage, Guideline 12 anticipates that licence conditions could establish time frames for radio service implementation. We recommend that the Guideline also address the issue of reclaiming radio spectrum where efficient utilization does not take place. Accordingly, we propose the following additional wording at the end of Guideline 12:

The Department will periodically review the aggregate spectrum holdings of licensees, and will take appropriate steps to address non-compliance with licence conditions, especially by licensees that are perceived to be engaged in spectrum warehousing.

### **III Research and Development Obligations Should Be Better Targeted**

TeraGo endorses the Department's objective of encouraging radiocommunication research and development in Canada in order to help bring new technology to market. That said, the Department's approach of imposing R&D expenditure licence conditions needs to be better targeted.

The Department should encourage licensees to enter and expand their services. Imposing a tax on licensees, such as an R&D tax, can only diminish the incentive to do so. In the case of small licensees, the benefits achieved by the R&D tax are correspondingly small. The amount of money that will be directed to R&D will be very limited and yet the licensee will still bear the expense of administering the tax.

What is needed is a balancing of the benefits of encouraging research and development against the costs of taxation and corresponding administration. The CRTC faced a similar balancing task when it imposed a revenue-based contribution charge on Canadian carriers in 2000. In Decision 2000-745, the Commission expressed the problem, and solution, for small operators as follows:

97. The Commission is concerned by the amount of work required to collect contribution from all telecommunications service providers, given that many of the service providers, in particular the competitive payphone providers and resellers, could have negligible contribution-eligible revenues, given the deduction for inter-carrier payments.

98. The establishment of a minimum revenue threshold would allow smaller companies to attain a certain level of revenues before being required to contribute and would also increase the administrative efficiency of the mechanism by reducing the number of parties required to contribute.

99. The Commission determines that the minimum revenue threshold should initially be set at \$10 million annual total CTSR (i.e., before deductions) and that this threshold amount will be

reviewed as required. The \$10 million is to be determined based on the company's previous year's actual financial results.

Consistent with the CRTC's approach, we recommend that Policy Guideline 10, which deals with facilitating advances in technology, be amended to specifically exempt small licensees from any R&D tax. The fairest approach to this would be to establish an amount, say \$10 million per year, that a licensee could deduct from its revenues in calculating the quantum of tax payable. Such a deduction approach will ensure that all licensees realize the same deduction, and thus are treated equitably. For small operators, the R&D tax would, in effect, be eliminated. Accordingly, we propose the following additional wording to be inserted at the end of Guideline 10:

R&D requirements will not, however, be imposed on particularly small licensees.

#### **IV To Conclude**

We welcome the opportunity to provide input to the Departments Consultation process, and we trust that the Department will find our comments helpful.