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Via Email: spectrum.auctions@ic.gc.ca.

Re: Consultation on a Licensing Framework for Broadband Radio Service (BRS) — 2500 MHz Band

1. The Canadian Wireless Telecommunications Association (CWTA) is the authority on wireless issues, developments and trends in Canada. It represents cellular, PCS, messaging, mobile radio, fixed wireless and mobile satellite carriers as well as companies that develop and produce products and services for the industry.
2. CWTA is pleased to file comments with respect to the *Licensing Framework for Broadband Radio Service (BRS) — 2500 MHz Band*, which will focus on (i) the proposal that “The licensee must invest, as a minimum, 2 percent of its adjusted gross revenues resulting from its operations in this spectrum, averaged over the term of the licence, in eligible research and development activities related to telecommunications,” (the R&D COL), and (ii) the proposed changes to ‘Lawful Intercept’ conditions of licence.
3. Specifically, CWTA submits that:
 - a. Applying the R&D COL to a new spectrum band should not be the default approach in the absence of a formal decision on whether 2500 MHz licences be subject to the COL;
 - b. The R&D COL is an artifact from a previous era that is no longer appropriate or required. It produces more red tape than research;
 - c. Prescribing a range of R&D activities, as well as an amount of money in which the industry must invest, will stifle innovation and harm the industry;
 - d. Immediate relief is necessary in an industry where network demand and need for additional capital expenditure is accelerating exponentially;
 - e. Innovation will be maintained by the market imperative for wireless licensees to invest in R&D as a competitive advantage; and

- f. The current lawful intercept COL should be retained until such time as new legislative requirements have been finalized. Solicitor General standards should be the subject of a separate consultation, and ultimately be based on commercially-available technology.

Applying the R&D spending requirement to a new spectrum band should not be the default approach in the absence of a formal decision on whether 2500 MHz licensees be subjected to the COL

4. CWTA notes that Industry Canada proposed in the March 2009 *Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz* that the R&D COL for Cellular, PCS and AWS licences also be applied to BRS licences. The Department's June 2010 decision on that consultation, however, did not address the R&D COL.
5. CWTA also notes that Industry Canada similarly has yet to issue a decision on its March 2009 *Consultation on Revisions to the Framework for Spectrum Auctions in Canada*, which also sought to address the ongoing applicability of the R&D spending requirement. In a letter from the Department dated August 17th 2009 it stated:

“We recognize the industry's need for clarification on this in the near term and expect to release a decision on all issues consulted upon, including R&D, before the end of the year.”
6. Now, more than three years after the initial consultations, and with no decision on the R&D COL from either past consultation, Industry Canada proposes in the current consultation document that:

“until such a time as a decision is released, Industry Canada proposes that the R&D condition of licence apply to licences in the 2500 MHz band as stated below, but may be amended during the licence term.”
7. Two consultations have been held on the relevance of the R&D COL – with one being specific to 2500 MHz spectrum – and no decision has yet been released. CWTA, therefore, respectfully submits that the default approach should not be to impose a new COL through the spectrum auction where two dedicated consultations have so far failed to reach such a conclusion. CWTA also notes that Industry Canada will not be imposing the R&D COL on existing 2500 MHz licensees following the auction, and should therefore keep spending obligations consistent for all licensees in the band.
8. Finally, CWTA submits that it is well past time for an updated decision to be taken on this issue as a whole for the following reasons:

The R&D condition is an artifact from a previous era that is no longer appropriate or required. It produces more red tape than research.

9. This COL may have made sense when the wireless industry was in its infancy, and there was little or no wireless R&D infrastructure in Canada – a situation far from reality today, with numerous wireless innovation clusters across the country.
10. Today, wireless R&D investment is driven by growing levels of competition in the industry, rather than by regulatory requirement. In today's marketplace, wireless carriers facilitate innovation through “innovation clusters” or “innovation centres,” through wireless application and device development in

research labs, and through testing of new applications and services on the networks themselves, particularly their world-leading HSPA+ networks.

11. This is also an obligation that is unique to wireless spectrum licences. To the best of CWTA's knowledge, no other industry in Canada, and no other segment of the telecommunications industry, faces a similar obligation. CWTA has not been able to identify any other jurisdiction internationally that imposes this type of condition on spectrum licensees; it has been effectively phased out for satellite orbital slot licensees. The effect of this unique situation is to put Canada's wireless industry at a competitive disadvantage both domestically and internationally. It raises industry's regulatory compliance costs, to no discernible advantage. It adds to the Government's regulatory monitoring costs, to no discernible advantage. The COL produces more red tape than marketable R&D.

Prescribing a range of R&D activities as well as an amount of money in which the industry should invest will stifle innovation and harm the industry

12. In today's wireless marketplace, productivity gains through R&D are the result of commercializing innovation, more than through a prescribed list of general R&D activities prescribed in the policy that underpins the R&D COL. By continuing to prescribe the range of R&D activities in which the industry should invest, the current COL diverts wireless carriers' R&D activity from where it can have the greatest overall contribution to productivity and innovation.
13. According to the Department, more than a billion dollars has been invested in R&D since the first licences were issued.¹ As industry revenues have grown significantly in recent years, so too has the cost of this obligation. This condition adds a financial and administrative burden on licensees and suppresses network investment.

Immediate relief is necessary in an industry where network demand and the need for additional capital expenditure is accelerating exponentially

14. Consumer demand for voice and data services is putting considerable pressure on the capacity of wireless networks. This, in turn, drives significant investments to increase the capacity and coverage of these networks. Licensees should be provided maximum flexibility to invest all available resources as they choose, rather than diverting 2% of revenues to comply with an outdated list of government-prescribed R&D activities.
15. Even during the recent economic downturn wireless carriers invested billions of dollars in wireless infrastructure, over and above their expenditure on licence fees. There has been more than \$7.3 billion invested since 2008, which does not include the \$4.3 billion in AWS spectrum expenditures. According to Ovum, \$2.5 billion was invested by Canadian wireless carriers in CAPEX in 2010 alone.²
16. These investments are being made in response to the unprecedented growth in capacity demand. Canadian smartphone penetration is expected to reach 55% by the end of the year, approximately double where it was two years ago.³ Tablet adoption in Canada increased 400% in just over a year and a

¹ Consultation on Revisions to the Framework for Spectrum Auctions in Canada April 2009 <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09371.html>

² The Benefit to the Canadian Economy from the Wireless Telecommunications Industries: An Economic Impact Assessment – Ovum 2012

³ Convergence Consulting Group, Canadian Wireless: Assessing The Impact of New Entrants – Sep 2012

half, for a penetration rate of 15% among internet users, up from 3% in January 2011.⁴ Not surprisingly, Cisco reported in February that “Global mobile data traffic grew 2.3-fold in 2011, more than doubling for the fourth year in a row” and “Global mobile data traffic will increase 18-fold between 2011 and 2016.”⁵ This is very positive in terms of productivity and innovation, but at the same time is taxing on the networks.

17. The need for capital investment is clear, and the industry has demonstrated that it is prepared to continually and constantly invest in the coverage and capacity of their networks. But the industry needs access to all available sources of funds. The R&D COL constrains a significant amount of capital in pursuit of goals that are already being met in the marketplace.

Innovation will be maintained by the market imperative for wireless licensees to invest in R&D as a competitive advantage

18. Telecommunications is one of Canada’s most research-intensive industries. That is not about to change with the removal of this COL. Wireless companies invest in R&D to remain competitive and with more competition in the industry than ever it is certain that R&D investments will continue. Innovation is not limited to a narrow tax definition of R&D. There is a direct link between investment today in wireless infrastructure and the consequent use of these networks.
19. Again, CWTA reiterates that the Department itself recognized the need for clarity on the question of when this R&D COL would be removed, more than three years ago. The Department has removed this COL from satellite licences, but proposed to maintain it – for unexplained reasons – for wireless licensees, going forward. This situation is completely at odds with the reality in the marketplace, and with the Government’s stated objective of removing red tape to allow businesses to be more productive and more innovative.
20. The time to eliminate this regulatory relic is long past, and CWTA strongly recommends it be removed from existing cellular, PCS and AWS licences, and that it not be imposed on 2500MHz licensees. If the Government is serious about reducing red tape for business, then there is simply no reasonable rationale for maintaining it.

The proposed lawful intercept COL needs to be revised to better address the intent of the condition

21. The Department’s proposed change to the lawful intercept COL would impose substantial new obligations on licensees, at a time when parallel legislation addressing similar areas of licensees’ operations is before Parliament. CWTA submits that such new changes would be more appropriately made via federal legislation, or the pending revision to the Solicitor General’s standards that Public Safety Canada is proposing.
22. The current Solicitor General’s standards require access to the entire telecommunication transmitted, or caused to be transmitted, and all associated call data. The existing COL appropriately restricts this requirement to “circuit-switched voice telephony systems.” Together, existing requirements are clear that voice communications, SMS messages and faxes are already subject to lawful intercept.

⁴ Ipsos Reid, Mobil-ology, September 2012.

⁵ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2011–2016.

23. The Department's proposal to replace "circuit-switched voice telephony systems" with "interconnected radio-based transmission facility for compensation," opens up several additional services to interception requirements, including internet services, and cable and broadcasting services.
24. CWTA notes that there has been no enabling legislation passed by Parliament that would require such services be intercepted, and submits that it is inappropriate for the Department to impose such requirements via a COL – particularly at a time when the Government is engaged in a legislative process covering the lawful access issue at a broader level. The COL should reflect the legislative requirements that exist at the time the licences are issued, and not be crafted in anticipation of legislative requirements that may or may not be in force at some point in the future.
25. Given the ongoing legislative process CWTA recommends that the existing COL be retained in licences, until such time as the legislative requirements are finalized, and the COL can be amended accordingly to bring it into line with the legislation that exists at that time.
26. Similarly, CWTA agrees that the Solicitor General standards should be subject to a consultation. In order to facilitate commercially available off the shelf (COTS) equipment for lawful intercept, the Solicitor General standards should ultimately be based upon standards that have been prepared by an accredited industry standards organization.

Conclusion

27. In conclusion, CWTA reiterates that:
 - a. Applying the R&D COL to a new spectrum band should not be the default approach in the absence of a formal decision on whether 2500 MHz licences be subject to the COL;
 - b. The R&D COL is an artifact from a previous era that is no longer appropriate or required. It produces more red tape than research;
 - c. Prescribing a range of R&D activities, as well as an amount of money in which the industry must invest, will stifle innovation and harm the industry;
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 - f. The current lawful intercept COL should be retained until such time as new legislative requirements have been finalized. Solicitor General standards should be the subject of a separate consultation, and ultimately be based on commercially-available technology.
28. CWTA appreciates the opportunity to share its views with the Department as part of this important process.

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