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Subject: **Canada Gazette Notice No. SLPB-005-17, Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band, published 19 August 2017 – Comments**

Bell Mobility Inc. is pleased to submit the attached Comments in the above-noted consultation.

Yours truly,

[*Original signed by R. Malcolmson*]

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Attachment

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CANADA GAZETTE NOTICE NO. SLPB-005-17

**CONSULTATION ON A TECHNICAL, POLICY AND LICENSING
FRAMEWORK FOR SPECTRUM IN THE 600 MHz BAND**

**PUBLISHED IN THE *CANADA GAZETTE, PART I*
ON 19 AUGUST 2017**

**COMMENTS
OF
BELL MOBILITY INC.**

2 OCTOBER 2017

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1.0 EXECUTIVE SUMMARY

E1. In Canada Gazette Notice No. SLPB-005-17, *Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band*, (the Consultation), Innovation, Science and Economic Development Canada (ISED or the Department) seeks comments on all aspects related to the licensing of the above-noted spectrum. The Department notes that the auction of 600 MHz spectrum presents a key opportunity to support competition and the provision of high quality and innovative wireless services to Canadians. In furtherance of this goal, the Department concludes that it is necessary to set-aside 600 MHz spectrum for "regional service providers". This is a flawed conclusion.

E2. Contrary to the presumption that competitive measures are required in the 600 MHz auction, there is an abundance of compelling evidence that today's wireless marketplace is highly competitive and the "regional providers" do not need financial concessions in the form of set-aside spectrum, particularly since these regional providers are large, well-capitalized incumbent cable companies. Canada's wireless market is characterized by intense rivalry across a variety of dimensions, and this has resulted in world class networks, excellent coverage, high rates of usage, and great value for consumers. The most advanced wireless networks available in the world have been rolled-out to Canadians in both urban and rural areas; our LTE network covers 99% of the population and our world-leading LTE-Advanced network covers approximately 87%.

E3. Previous Canadian auctions employing set-asides have proven that they distort the process to the significant benefit of the set-aside spectrum recipients and the detriment of Canadian taxpayers. This also appears to be the intention of the proposed auction framework which is designed to minimize the auction prices paid by regional providers. An efficient allocation of spectrum cannot be achieved if spectrum set-asides are implemented as part of an auction process. Set-aside licenses enable the favoured bidders to asymmetrically raise costs for set-aside-ineligible bidders at little risk to themselves. This asymmetry – wherein the bids of set-aside-eligible bidders can affect the prices of ineligible bidders, but the reverse does not hold – presents a special concern that the strategy of raising rivals' costs could distort efficient prices in the 600 MHz auction.

E4. The policy question now facing ISED is how long it will tilt the auction rules in favour of the regional wireless providers, which are also the largest incumbent cable companies in the

country. Will it always skew auctions to regional service providers' advantage? If not, then under what conditions should the regulatory asymmetries be corrected? In our view, after 10 years of auction-related advantages and over \$4 billion in auction-related financial subsidies, the regional providers are demonstrably well-established, successful and in no danger of involuntarily exiting the market.

E5. The corporate beneficiaries of the Government's largesse do not need taxpayer-funded subsidies. Quebecor's market capitalization is about \$5.6 billion while Shaw's is two and a half times larger at over \$14 billion.¹ Since these corporations became wireless service providers their market value has soared. In Shaw's case, its market capitalization has increased by more than \$2.5 billion in only two years, while Quebecor, which first won its subsidized spectrum in 2008, has seen its market capitalization increase by over \$3 billion.² At the end of May 2017, Shaw had over 1.1 million wireless subscribers while Quebecor had 953,000. Therefore, implementing set-asides and/or auction subsidies in the 600 MHz auction, and other future auctions is completely unwarranted.

E6. The Consultation also seeks comments on the three proposed versions of the Combinatorial Clock Auction (CCA). We recommend that the Department adopt the CCA that uses the WARP-based activity rule. The GARP-based activity rule is significantly more restrictive than the WARP-based activity rule, and therefore may not always permit – let alone encourage – truthful bidding. The GARP-based activity rule is only guaranteed to allow truthful bidding if all bids are consistent with some implied set of valuations, which must be known in advance and cannot be changed in the course of the auction.

E7. The proposition that bidders know all their valuations upon entering the auction is inconsistent with the original motivations for the CCA design. A major motivation for the CCA design is that with many thousands of packages possible, bidders would learn about and focus close attention only on the relevant ones during the auction, and might also learn something about values from the bids placed by others. The WARP-based activity rule, by imposing only a rough consistency, leaves room for exploration and revision and allows the clock rounds to perform their function. The GARP-based activity rule does not, and denies the logical foundation of the CCA design.

¹ As of 26 September 2017.

² Shaw purchased WIND Mobile in March 2016. Shaw's market capitalization increased from about \$11.5 billion at the end of 2015 to \$14.1 billion as of 26 September 2017. Quebecor first won auctioned spectrum in 2008. Quebecor's market capitalization increased from about \$2.4 billion at the end of 2007 to more than \$5.6 billion as of 26 September 2017.

E8. We strongly recommend that the Department reject the Enhanced Combinatorial Clock Auction (ECCA). There is no qualified academic research, whether theoretical or experimental, concerning the ECCA format, and to our knowledge, it has never been implemented anywhere in the world. Claims about the potential strengths of the ECCA are unsupported conjectures, which appear to be largely false. Specifically, the ECCA does not generally incentivize truthful bidding or decrease bidder uncertainty. Moreover, the written description of the ECCA format lacks sufficient numerical examples for a reader to be confident about the meaning of the rules.

E9. The Consultation is silent on the issue of compensating the affected Over-the-Air (OTA) TV undertakings for the costs of being displaced from the 600 MHz band. This omission should be addressed in the policy resulting from the current consultation process. The 600 MHz auction is expected to generate more than \$1.5 billion in revenue for Government, and as such, represents an ideal vehicle for OTA TV compensation.

E10. In addition, the Government should consider dedicating a portion of the auction proceeds to create an independently administered fund to support local television stations across the country. We propose that 10% of the auction proceeds be put into an independently-administered fund that would direct monies to licensed local television stations to help support the cost of producing local programming, much like the former Local Programming Improvement Fund did. A fraction of the proceeds from the 600 MHz auction alone could provide much needed support for many years, especially given the glaring absence of any mention of the critical importance of local television to local communities in the recently released *Creative Canada: Policy Framework*.³

E11. With regard to the proposed conditions of licence (COLs), we recommend eliminating the conditions related to research and development (R&D) expenditures, and mandatory roaming. Recent initiatives by the Canadian Radio-television and Telecommunications Commission (the Commission) make the mandatory roaming COL duplicative as it relates to national carriers and at odds with the findings of the Commission as it relates to non-national carriers. It is, therefore, unnecessary as it relates to non-national carriers and inconsistent with the objectives of the *Telecommunications Act* as it relates to national carriers. Finally, we recommend changes to the annual reporting COL which will ease the regulatory burden on licensees and ISED alike.

³ https://www.canada.ca/content/dam/pch/documents/campaigns/creative-canada/FINAL%20Backgrounder_EN.pdf.

2.0 TREATMENT OF EXISTING SPECTRUM USERS

1. Section 8 of the Consultation notes that some OTA TV undertakings operating in the 600 MHz band will be displaced by the Government's repurposing of this spectrum. The Consultation is silent on the issue of compensating the affected OTA TV undertakings for the costs of being displaced. This omission should be addressed in the policy resulting from the current consultation process. The 600 MHz auction is expected to generate more than \$1.5 billion in revenue for Government, and as such, represents an ideal vehicle for OTA TV compensation.

2. Local television is a foundational element of the Canadian broadcasting system. Unlike any other service, it connects, entertains and informs local viewers, and reflects the interests and concerns of local communities. It provides a local voice and a community perspective, with a dedicated focus on local news, information and community events. Its true local connection is best exemplified at a time of community need or public engagement. In times of conflict, political process, or natural disaster, local stations are at the forefront of local coverage and community information. They become essential local services.

3. Notwithstanding the range of viewing options now available, local television retains its unique perspective. Local stations are still the most watched television services. Each and every night, millions of Canadians watch their local station. They produce Canada's most watched programs, whether they are local news or popular Canadian dramas, comedies or reality shows. Local television signals can also be received free, OTA, without any subscription fee. They provide significant value and are a low-cost means for all Canadians to access television. Unlike foreign internet giants, local television employs actual Canadian journalists who are the news gathering sources Canadians rely on daily.

4. Despite its importance and popularity, local television's reliance on a single revenue stream (advertising) has seen the financial health of the sector decline in recent years. In the last five years private local television stations have sustained pre-tax losses of more than \$700 million.⁴ This is clearly not sustainable over the longer term. To these losses will be added the cost of ISED's proposed repacking plan, which could exceed \$100 million for the private television industry. This is a financial burden that the sector simply cannot afford.

⁴ CRTC, Conventional Television Statistical and Financial Summaries, 2012-2016, page 1; available at: <http://crtc.gc.ca/eng/publications/reports/BrAnalysis/tv2016/tv2016.pdf>.

5. In our case, we anticipate that the 600 MHz transition could cost as much as \$63 million to upgrade all transmitters identified in Categories B through E in the ISED transition plan. While we can reduce this amount, it would entail not transitioning certain analog transmitters to digital or simply shutting them down. Moreover, even though television transmitters have a lifespan of many decades, seven of the transmitters we are now being asked to transition were only installed in 2011 to facilitate an earlier spectrum reassignment by ISED. In total, we invested over \$23 million to convert 23 transmitters at that time. We were not compensated for these costs, which have not been fully depreciated. These costs generated no new revenue given that the overwhelming majority of tuning to local television stations occurs through broadcasting distribution undertakings such as cable, Internet Protocol Television and direct-to-home satellite, rather than OTA.

6. In light of these factors, we propose that the Government cover the costs incurred by local television stations to vacate the 600 MHz spectrum in order to accommodate the plan to re-allocate the spectrum to mobile use. We see this as reasonable and necessary given: 1) the recent significant investments we made in transmitter upgrades to accommodate a previous spectrum reassignment by ISED; 2) the transition costs are a direct result of this Government initiative and would not be otherwise incurred by the industry; and 3) we do not expect to receive any financial return from the expenditures required for the transition – it is capital that will no longer be available for investments that deliver benefits to viewers.

7. The 600 MHz spectrum auction also creates a unique opportunity for the Government to provide sustainable, financial support for local television stations out of the auction proceeds. The concept of using auction proceeds to fund local television is not dissimilar to the approach taken in the U.S. where local broadcasters are being compensated to vacate the 600 MHz spectrum by way of an incentive auction which will see stations being paid for the spectrum they vacate. We, therefore, ask the Government to consider dedicating a portion of the auction proceeds to create an independently administered fund to support local television stations across the country. We propose that 10% of the auction proceeds be put into an independently-administered fund that would direct monies to licensed local television stations to help support the cost of producing local programming, much like the former Local Programming Improvement Fund did. A fraction of the proceeds from the 600 MHz auction alone could provide much needed support for many years, especially given the glaring absence of any mention of the critical importance of local television to local communities in the recently released *Creative*

Canada: Policy Framework.⁵

3.0 **SET-ASIDES**

3.1 **Question 1A**

ISED is seeking comments on its proposal to implement a set-aside as a pro-competitive measure in the auction process for the 600 MHz band.

8. ISED summarized its objectives for the release of 600 MHz spectrum as follows:

ISED views the release of the 600 MHz band as an opportunity to encourage investment and improve services provided by both newer and established carriers. In addition, it presents a key opportunity to support competition and the provision of high quality and innovative wireless services to Canadians.⁶

9. To achieve these objectives, ISED incongruously proposes to ignore the interests of established carriers by structuring the 600 MHz auction to "further support the competitiveness of the newer service providers by ensuring that they will have an opportunity to acquire additional low-band spectrum to effectively compete with the services offered by the more established wireless service providers".⁷ In furtherance of this goal, ISED concludes that it is necessary to set-aside 600 MHz spectrum for "regional service providers" because the "national incumbents" have market power.⁸ This is a flawed conclusion which relies upon a Competition Bureau (the Bureau) submission in a 2014 Commission proceeding to investigate undue preference allegations in the provision of wholesale roaming services.⁹ As discussed below, the Bureau's analysis is problematic for several reasons.

10. First, the Bureau's analysis is out-of-date as it is from January 2014 and was based upon data from 2013 and older. So even if the conclusion was correct in 2014 it is not certain that it would be correct today. As will be discussed further below, the wireless businesses of Videotron and Eastlink have continued to grow since 2013/2014 and there is no doubt that they will remain in the market for the foreseeable future. WIND, which at the time of the Bureau's submission was having financial difficulties, is now owned by Shaw Communications Inc., one of the largest cable companies in the country, and is no longer in danger of failing. In fact,

⁵ https://www.canada.ca/content/dam/pch/documents/campaigns/creative-canada/FINAL%20Backgrounder_EN.pdf.

⁶ Consultation, paragraph 7.

⁷ Consultation, paragraph 18.

⁸ Consultation, paragraph 20.

⁹ Consultation, paragraph 22. This conclusion is taken from: Submission by the Commissioner of Competition Before the Canadian Radio-television and Telecommunications Commission; Telecom Notice of Consultation CRTC 2013-685, *Wholesale mobile wireless roaming in Canada — Unjust discrimination/undue preference*, 29 January 2014, paragraph 13.

Freedom Mobile, as WIND is now branded, has embarked on an aggressive wireless subscriber acquisition program under its new owners.

11. Second, the conclusion in the Bureau's submission is based on conjecture rather than facts. For example, without reference to any specific analysis, the Bureau hypothesized that:

In practical terms, strategic actions by incumbent service providers **have likely resulted in, or will likely result in,** entrant service providers charging higher prices at the retail level, or providing less attractive non-price elements of their services in those markets, than they would if their roaming agreements were not affected by the strategic actions of the incumbent service providers.¹⁰ [emphasis added]

12. In its reply comments in that proceeding the Bureau acknowledged that it did not have access to information that is typically needed to conclude that anti-competitive behaviour led to, or was likely to lead to, a significant lessening of competition:

The Bureau does not have access to the confidential record in this matter and, therefore, does not have the necessary information to provide the CRTC with detailed comments on the extent to which wholesale roaming prices charged to entrants are supra-competitive.¹¹

13. Third, as support for its statement that incumbents have market power, the Bureau refers to its 2013 analysis of the acquisition of Public Mobile by Telus (the Bureau's Statement).¹² However, in that statement the Bureau approved the acquisition and concluded that: "the proposed transaction is unlikely to lead to a substantial lessening or prevention of competition due to the existence of effective remaining competition in each of the geographic areas where the parties' wireless networks overlap."¹³

14. Fourth, the Bureau's Statement explained that its findings in the Telus/Public Mobile case may not be generalized:

¹⁰ Submission by the Commissioner of Competition Before the Canadian Radio-television and Telecommunications Commission; Telecom Notice of Consultation CRTC 2013-685, *Wholesale mobile wireless roaming in Canada — Unjust discrimination/undue preference* (Bureau's Submission), 29 January 2014, paragraph 7.

¹¹ Reply of the Commissioner of Competition Before the Canadian Radio-television and Telecommunications Commission Telecom Notice of Consultation CRTC 2013-685, *Wholesale mobile wireless roaming in Canada — Unjust discrimination/undue preference* (Bureau's Reply), 10 February 2014, paragraph 17.

¹² For example, see footnote 12 of the Bureau's Submission and footnote 16 of the Bureau's Reply.

¹³ *Competition Bureau statement regarding the proposed acquisition by TELUS of Public Mobile*, 29 November 2013 (Bureau's Statement), <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03633.html>.

Analytical methodologies are applied, and enforcement decisions are made, on a case-by-case basis. The methodologies and conclusions discussed in this statement are specific to the review of the transaction in question and are not binding on the Commissioner.¹⁴

Therefore, the Bureau's Statement does not support the conclusion that incumbents have market power generally, or in any particular geographic market, and should not be relied upon by ISED as the rationale for implementing "pro-competitive measures" in the 600 MHz auction.

15. ISED also notes that "the Competition Bureau recently concluded that the lower prices are caused by the presence of a strong regional competitor."¹⁵ As discussed further below in our response to Question 1B, the regional providers are demonstrably well-established, successful and in no danger of involuntarily exiting the market. In fact, contrary to the presumption that competitive measures are required in the 600 MHz auction, there is an abundance of compelling evidence that today's wireless marketplace is highly competitive and the "regional providers" do not need financial concessions in the form of set-aside spectrum. In our submission in the Commission's reconsideration of Telecom Decision 2017-56 (TNC 2017-259)¹⁶ we provided a great deal of evidence to support this conclusion. For example:

- Carriers have made more than 600 announcements since 2009 of innovations intended to improve their services for consumers and gain a competitive advantage;
- Since January 2016, there have been more than 1,600 separate advertisements run by wireless carriers promoting lower prices, discounts, increased value, or other product and service attributes;
- There were more than 1,200 effective price reductions in the first half of 2017; the consumer price index for telephone services in Canada have been lower than the rate of inflation since 2002 and has been flat or declined since 2015, while per-unit prices have declined dramatically;

¹⁴ Bureau's Statement, footnote 1.

¹⁵ Consultation, paragraph 22.

¹⁶ Telecom Notice of Consultation CRTC 2017-259, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, available on the Commission's website at: <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=241087&en=2017-259&dt=i&lang=e&S=C&PA=t&PT=nc&PST=a>.

- Canadian carriers invest more per subscriber in their wireless networks than carriers in any country other than the U.S. and Japan¹⁷, and according to ISED, Canada has "world-leading wireless infrastructure";¹⁸
- The most advanced wireless networks have been rolled-out to Canadians in both urban and rural areas; our LTE network covers 99% of the population and our world-leading LTE-Advanced network covers approximately 87%;
- Wireless networks in Canada are the fastest in the world next to Korea;¹⁹
- Our network in communities like Barrie and Welland is faster than networks in such densely populated urban areas as New York, Singapore, Budapest, Melbourne, Sydney, Stockholm, Seoul, Dubai, Shanghai, Los Angeles, Vienna, Milan, Madrid, Zurich, Beijing, Rome, Paris, Berlin, London, Tokyo, Hong Kong, and Rio de Janeiro;²⁰
- Canadians have the second highest smartphone adoption and fourth highest total wireless usage in the world;²¹
- There are more retail locations in Canada at which wireless services can be purchased than there are Tim Hortons and Canadian Tire locations combined;
- Canada ranks first in the world in the Economist Intelligence Unit's ranking of affordability (includes both wireless and wireline services);²² and
- Canada spends less of its gross domestic product (GDP) on wireless services (1%) than Korea (1.5%) or Japan (1.2%), and only slightly more than the US (0.9%), the only three countries with more usage.²³

16. These facts are all indicators of a highly competitive market and inconsistent with the presumption that incumbents have market power. It is, therefore, neither necessary nor

¹⁷ Calculation divides the capital expenditure of the three largest providers in terms of subscribers by the total number of subscribers for those providers. However, when the numbers are not available the top two providers are used. This is the situation for Brazil, China, Russia, Mexico, and South Africa. Note that South Korea is not included because Capex is not available for the top two and three providers for the past two years. Bank of America Merrill Lynch *Global Wireless Matrix Service Revenue Outlook Strengthens for '17 and '18 as DM Turn Positive and EM Remain Strong 4Q16*, 10 April 2017. Note that this is not the complete G20 since the *Global Wireless Matrix* does not track Saudi Arabia.

¹⁸ Consultation, paragraph 6.

¹⁹ Cisco's *Visual Networking Index Mobile Forecast Highlights, 2016-2021*, available at: http://www.cisco.com/c/dam/assets/sol/sp/vni/forecast_highlights_mobile/index.html#~Country.

²⁰ Based on Ookla's analysis of Speedtest Intelligence data from 1 January to 31 March 2017.

²¹ Cisco's *Visual Networking Index Mobile Forecast Highlights, 2016-2021*, available at: http://www.cisco.com/c/dam/assets/sol/sp/vni/forecast_highlights_mobile/index.html#~Country.

²² See <https://theinclusiveinternet.eiu.com/explore/countries/performance?category=affordability>.

²³ Source: Bank of America-Merrill Lynch *Global Wireless Matrix 2Q17* 6 July 2017.

appropriate to implement a set-aside as a pro-competitive measure in the auction process for the 600 MHz band.

3.2 **Question 1B**

ISED is seeking comments on its proposal to set aside 30 MHz of spectrum in the 600 MHz band for eligible entities and to have open bidding (no pro-competitive measures) on the remaining 40 MHz in the band.

17. Previous Canadian auctions employing set-asides have proven that they distort the process to the significant benefit of the set-aside spectrum recipients and the detriment of Canadian taxpayers. This also appears to be the intention of the proposed 600 MHz auction framework which is designed to minimize the auction prices paid by regional providers.

18. The Department should support a market-based approach to spectrum allocation as indicated in the *Spectrum Policy Framework for Canada's* enabling guidelines (a) and (d) which state that market forces should be relied upon to the maximum extent feasible, and regulatory measures, where required, should be minimally intrusive, efficient and effective, respectively.²⁴ Market forces, in short, will ensure that those willing and able to put the spectrum to its best use will bid for and acquire it. A market-based approach to spectrum allocations will also ensure that the Government garners the highest possible value for the spectrum it administers on behalf of Canadians.

19. An efficient allocation of spectrum cannot be achieved if spectrum set-asides are implemented as part of an auction process. Set-aside licences enable the favoured bidders to asymmetrically raise costs for set-aside-ineligible bidders at little risk to themselves. This asymmetry – wherein the bids of set-aside-eligible bidders can affect the prices of ineligible bidders, but the reverse does not hold – presents a special concern that the strategy of raising rivals' costs could distort efficient prices in the 600 MHz auction.

20. Previous set-aside policies have resulted in increasing the wireless industry's costs by hundreds of millions of dollars by artificially reducing supply and creating arbitrage opportunities. Furthermore, spectrum set-asides can delay the allocation of valuable spectrum. After originally going unsold, the set-aside spectrum in the areas of Manitoba, Saskatchewan and the North in the first AWS-3 auction had to be put up for auction again without the set-aside restriction.

²⁴ Industry Canada, *Spectrum Policy Framework for Canada*, June 2007, available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08776.html#s44>.

21. The regional service providers, which are also among the largest incumbent cable service providers in the country, have been the recipients of several auction windfalls in the last decade. In the AWS-1 spectrum auction new entrant bidders were able to bid on both set-aside spectrum and non-set-aside spectrum, which allowed them to minimize their own costs of acquiring spectrum while inflating others' costs. There were a number of circumstances where a new entrant bid on non-set-aside spectrum even though equivalent set-aside spectrum was available at a much lower price. As a result, the price for set-aside spectrum ended up being far lower than the price for equivalent non-set-aside spectrum.

22. Another example is the AWS-3 auction where WIND (now Shaw), Videotron and Eastlink all won significant blocks of spectrum covering most of the country for a combined total of less than \$100 million or about \$0.11/MHz-Pop. In contrast, incumbents paid over \$3/MHz-Pop for comparable spectrum – about 28 times as much. Canaccord Genuity put the result into perspective:

...the national incumbents won 670 MHz PoPs of spectrum for \$2.01 billion or \$3.00 per MHz PoP, while the new entrants purchased 934 MHz PoPs for only \$98 million or \$0.105 per MHz PoP. If the Government had sold the whole auction at \$3.00 per MHz PoP (which would still have been at a discount to the C\$3.42 MHz PoP for the equivalent spectrum in the U.S.), total proceeds would have been \$4.8 billion rather than the actual \$2.1 billion, implying a new entrant “subsidy” of \$2.7 billion.²⁵

23. As investment firm Macquarie Capital Markets concluded, the spectrum subsidies have provided Shaw (previously WIND) and Quebecor with a cost advantage over the incumbents.

... we believe new entrants Wind and Quebecor hold a near-term product competitive advantage to incumbents given both their amount of spectrum per subscriber (Fig 3) and their cost per MHz/Pop on that spectrum.²⁶

24. This outcome was the direct result of an auction framework that employed set-asides which limited the number of eligible bidders and shielded the eventual set-aside spectrum winners from a fully competitive auction. Similar outcomes resulted when ISED implemented set-asides in other auctions. We estimate that since the AWS-1 auction in 2008, more than \$4 billion in spectrum subsidies have been given to wireless entrants through set-asides.

25. The corporate beneficiaries of the Government's largesse do not need taxpayer-funded

²⁵ Canaccord Genuity, *Government gives wireless new entrants another huge subsidy*, 9 March 2015, page 4.

²⁶ Macquarie Capital Markets Canada Ltd., *Carrier ROIC, why it matters more now*, 6 January 2016, page 2.

subsidies. Quebecor's market capitalization is about \$5.6 billion while Shaw's is two and a half times larger at over \$14 billion.²⁷ Since these corporations became wireless service providers their market value has soared. In Shaw's case, its market capitalization has increased by more than \$2.5 billion in only two years, while Quebecor, which first won its subsidized spectrum in 2008, has seen its market capitalization increase by over \$3 billion.²⁸

26. At the end of May 2017, Shaw had over 1.1 million wireless subscribers²⁹ while Quebecor had 953,000.³⁰ Based on the most recent quarterly financial results reported, Shaw and Quebecor will each generate almost \$600 million in annual wireless revenue in the current fiscal year.³¹ For the full year, Shaw Communications Inc. is on pace to generate more than \$500 million in net income³² while Quebecor Inc. is on pace to generate more than \$380 million in net income³³. In other words, both companies are large and profitable with about one million wireless subscribers each.

27. Investment analysts now see the wireless businesses of Quebecor and Shaw as key profitability growth drivers which will allow them to buy back stock from minority investors or increase their dividends:

- [Quebecor's] wireless metrics continue to be strong with ARPU growth of 5.6%, still at the top. In terms of gross adds, it is the market leader in Quebec, second only to Bell in total wireless subscriber market share at 15%.³⁴
- **[Quebecor Inc.] remains best name to own in Canadian telecom ...** We believe outperformance will be mainly driven by: 1) the Quebec wireless business becoming an increasingly meaningful driver of profit and FCF [Free Cash Flow] growth ... With \$614m in proceeds from the sale of non-core spectrum, we believe acquiring full ownership of QMI is a priority and the next catalyst.³⁵

²⁷ As of 26 September 2017.

²⁸ Shaw purchased WIND Mobile in March 2016. Shaw's market capitalization increased from about \$11.5 billion at the end of 2015 to \$14.1 billion as of 26 September 2017. Quebecor first won auctioned spectrum in 2008. Quebecor's market capitalization increased from about \$2.4 billion at the end of 2007 to more than \$5.6 billion as of 26 September 2017.

²⁹ Shaw Communications Inc. News Release, *Shaw Announces Third Quarter and Year-to-Date Results*, 28, June 2017, page 10.

³⁰ Quebecor Inc., *Supplementary Disclosure, Quarter/6-Month Period Ended June 30, 2017*.

³¹ Shaw had generated \$433 million in wireless revenue for the nine-month period ended 31 May 2017. Quebecor had generated \$292 million in wireless revenue for the six-month period ended 30 June 2017.

³² Shaw Communications Inc. News Release, *Shaw Announces Third Quarter and Year-to-Date Results*, 28, June 2017, page 31.

³³ Quebecor Inc., *Condensed consolidated financial statements of QUEBECOR INC. for the three-month and six-month periods ended June 30, 2017 and 2016*, page 1.

³⁴ Cormark Securities Inc., Quebecor Inc., *Q2/17 Strong On Wireless, Internet*, 11 August 2017.

³⁵ Barclays, Quebecor Inc., *Acquiring full ownership of QMI the next catalyst*, 10 August 2017.

- ...we are impressed and amazed at how Shaw has been able to finance its entire entry into the wireless business, while concurrently IMPROVING its balance sheet ... The sale of non-core operations, at prices that well exceeded consensus expectations, have more than fully funded the investments necessary for a high quality entry into a much more strategic business, wireless ... If anything, one could argue that Shaw is now overcapitalized and underlevered, but we view this as a very prudent and deliberate strategy.³⁶

28. As a privately held company, Bragg Communications Inc. does not publicly report its financial or operating results. However, the available evidence indicates that the company is also large and profitable. For example, as part of its annual reporting to the Commission for broadcasting purposes, Bragg reported over \$640 million in revenue and \$180 million in profit before income tax for the year ending 31 August 2016.³⁷ Bragg considers its wireless business to be very successful; recently describing it as follows:

We have been ranked the fastest and most reliable network in our serving area every year since we launched service in 2013, we were the only service provider to launch a 100% 4G LTE network and the first to launch a pure VoLTE service in Canada (launched in Timmins, Ontario last year and now available in five provinces). Eastlink has also made available uniquely consumer friendly offers, including no term contracts, separating the cost of the device from the cost of the plan, and innovative data fees management tools that provide customers unprecedented flexibility and control over their monthly costs. We have expanded our network as quickly as possible, launching service in several new markets each year, and deploying infrastructure in primarily rural areas across six provinces. And, Eastlink continues to make significant infrastructure investments throughout our licence area, including rural areas.³⁸

29. In other situations, the original spectrum licensees were able to benefit from financial windfalls at the expense of Canadian tax payers. For example, Public Mobile was acquired by Telus for close to five times the original spectrum cost, and WIND Mobile's business was purchased from private equity firms for almost six times the amount paid they paid for it.³⁹ These are illustrations of the unintended consequences and perverse outcomes of intrusive regulations.

30. The policy question now facing ISED is how long it will tilt the auction rules in favour of

³⁶ TD Securities Inc., Shaw Communications Inc., *Masterful Funding of Wireless Strategy Deserves More Credit*, 2 August 2017.

³⁷ http://crtc.gc.ca/public/5040/Bragg_2016_BDU_Aggregate_Return_public.pdf.

³⁸ Comments of Bragg Communications Inc., Operating as Eastlink, in ISED's Consultation on a Licence Renewal Process for Advanced Wireless Services and Other Spectrum, Canada Gazette Notice No. SLPB-002-17, 25 July 2017, paragraph 4.

³⁹ Montreal Economic Institute, *The State of Competition in Canada's Telecommunications Industry – 2016*, pages 21 to 23.

the regional wireless providers, which as discussed above, are also the largest incumbent cable companies in the country. Will it always skew auctions to regional service providers' advantage? If not, then under what conditions should the regulatory asymmetries be corrected? In our view, after 10 years of auction-related advantages and over \$4 billion in auction-related financial subsidies, the regional providers are demonstrably well-established and successful and in no danger of involuntarily exiting the market. Therefore, implementing set-asides and/or auction subsidies in the 600 MHz auction, and other future auctions, would be gratuitous.

31. At a minimum, there should be no set-aside spectrum for the licences being auctioned in the North. Licences in these areas tend to have low demand. For example, as part of the upcoming Residual Auction, the Department is attempting, for a third time, to auction the 700 MHz spectrum in the North. Removing the set-aside requirement on Northern spectrum licences would be consistent with the Northern licences in the 2500 MHz band where the spectrum aggregation limit does not apply.

32. From a public policy perspective, a spectrum cap (e.g., of 20 MHz) would be preferable to a set-aside. A spectrum cap could address ISED's concerns about limiting the risk of spectrum concentration (since no party could acquire more than 20 MHz) without introducing the risks of regulatory gaming that are associated with set-asides. For example, in previous auctions set-aside eligible bidders were able to inflate the prices paid for spectrum subject to open bidding while being completely shielded from such behaviour themselves. We continue to believe that no "pro-competitive" measures are necessary, however, a spectrum cap of 20 MHz would be a better policy choice than a set-aside.

33. If ISED concludes that set-asides continue to be necessary for the regional service providers, it should, at a minimum, structure the auction in such a way that this set of competitors does not also receive financial subsidies. In other words, ISED should divorce the decision to set-aside spectrum from the decision to award financial subsidies. One method of achieving this would be to require the winners of set-aside spectrum to pay the average price per MHz-Pop that is paid in the auction. This requirement reduces the incentives for set-aside-eligible bidders to asymmetrically raise the costs for set-aside-ineligible bidders since they would now face the risk of higher prices. This requirement would also allow ISED to dedicate spectrum resources to the regional service providers without exacerbating the market distortion by also allowing these same providers to pay below-market prices.

34. In the alternative, ISED could have two simultaneous, but separate, auctions. One of 30 MHz for only the set-aside-eligible bidders, and one of 40 MHz for only the set-aside-ineligible bidders. This would allow spectrum to be allocated to the regional service providers while preventing the type of bidding behavior that occurred in the AWS-1 spectrum auction that allowed new entrant bidders to minimize their own costs of acquiring spectrum while inflating others' costs. An additional benefit of having two simultaneous but separate auctions is that ISED would not require the proposed methodology for incrementing prices during the clock rounds as described in Annex A of the Consultation. Prices could simply increase whenever there is excess demand for a generic block of spectrum. With this structure the auctions would perform as intended – allocating spectrum to those that value it the most.

35. Finally, if ISED implements a set-aside, we believe the amount of spectrum should be reduced. The current proposal is to set-aside 30 MHz, or 43%, of the available 600 MHz spectrum. While this is consistent with recent ISED auctions, e.g., 44% of AWS-1 spectrum and 60% in AWS-3, there are likely to be fewer set-aside-eligible bidders for 600 MHz spectrum than there were in previous auctions. Therefore, the amount of spectrum that is set-aside should be reduced – in our view, to 20 MHz.

3.3 **Question 1C**

ISED is seeking comments on its proposal to limit the eligibility criteria to bid on set-aside spectrum to those registered with the CRTC as facilities-based-providers, that are not national incumbent service providers, and that are actively providing commercial telecommunication services to the general public in the licence area of interest, effective as of the date of application to participate in the 600 MHz auction.

36. We support ISED's objective of minimizing the risk of speculation by bidders with no intention of deploying 600 MHz spectrum and who will instead attempt to resell any licences they win for a quick financial gain. However, the proposed eligibility constraint, which would allow facilities-based service providers of any type to bid in the 600 MHz auction, is not targeted enough to achieve this goal. Instead, we recommend that ISED narrow the criterion for eligible bidders to those entities who are registered with the Commission as wireless carriers,⁴⁰ already have spectrum licences and are actively providing commercial wireless services to the general public in the licence area of interest. Refining the criterion in this way will increase the likelihood that any spectrum won in the auction will be put to use as quickly as possible to the benefit of

⁴⁰ See the Commission's website at: <https://applications.crtc.gc.ca/telecom/eng/registration-list?pt=31>.

Canadians.

37. Limiting the eligibility criterion would also be more consistent with ISED's purpose for implementing "pro-competitive measures". For example, in reference to licensing 600 MHz spectrum, ISED stated:

Spectrum is a critical input for wireless carriers. **New competitors that entered the market after the 2008 AWS spectrum auction** continue to invest in their wireless networks and increase subscribership. Access to **additional spectrum** would assist them in their efforts to provide services using the latest technologies and increase network capacity in order to meet the traffic demands of a growing subscribership. In addition, national incumbent service providers would also benefit from access to additional spectrum, allowing them to increase capacity to better serve their substantial subscriber base. ISED views the licensing of 600 MHz spectrum as an opportunity to release spectrum to further support investment by service providers and improve wireless services for Canadians. In particular, it presents a key opportunity to **further support** the competitiveness of the **newer** service providers by ensuring that they will have an opportunity to acquire **additional** low-band spectrum to effectively compete with the services offered by the more established wireless service providers.⁴¹ (emphasis added)

38. The above paragraph contemplates two categories of bidders: competitors that entered the market after the 2008 AWS spectrum auction and national incumbent service providers. No mention is made of a potential third category of bidder – those who do not already have some spectrum. By indicating that the auction presents an opportunity to provide "further" support to "newer" (rather than "new") service providers and to acquire "additional" spectrum, it is clear that ISED is targeting existing wireless carriers rather than "facilities-based providers" of any other sort. It can ensure it does so by narrowing the scope of eligible bidders for set-aside spectrum as described above.

3.4 **Question 1D**

ISED is seeking comments on its proposal to limit the transferability of the set-aside spectrum for the first five years of the licence term.

39. The Consultation proposes that "the set-aside licences acquired by set-aside-eligible bidders, would not be transferable to set-aside-ineligible entities for the first five years of the licence term".⁴² The stated rationale for this proposal is to "ensure the effectiveness of the set-aside" (presumably to provide regional service providers with regulatory advantages) and deter speculation. We disagree with this proposal.

40. Preventing a wireless carrier from selling spectrum to a willing buyer contravenes

⁴¹ Consultation, paragraph 18.

⁴² Consultation, paragraph 30.

several of the enabling guidelines in the *Spectrum Policy Framework for Canada*, specifically:

- (a) Market forces should be relied upon to the maximum extent feasible.
- (d) Regulatory measures, where required, should be minimally intrusive, efficient and effective.
- (f) Spectrum management practices, including licensing methods, should minimize administrative burden and be responsive to changing technology and market place demands.
- (h) Spectrum policy and management should support the efficient functioning of markets by:
 - permitting the flexible use of spectrum to the extent possible;
 - making spectrum available for use in a timely fashion;
 - facilitating secondary markets for spectrum authorizations.⁴³

41. In particular, preventing the transfer of set-aside spectrum for a period of five years would not: rely on market forces to the maximum extent feasible; be minimally intrusive; be responsive to changing marketplace demands; permit the flexible use of spectrum; make spectrum available in a timely fashion; and facilitate secondary markets for spectrum. Moreover, as the Minister of ISED must ultimately approve any spectrum transfer, the proposal to have a five-year prohibition of transfers is unnecessary. The Minister will have the opportunity to determine whether any transfer is warranted through this approval process.

42. A five-year transfer prohibition places an unnecessary constraint on the Minister because there may be situations where, for the benefit of Canadians, the best course of action is for set-aside spectrum to be sold to an incumbent. For example, the spectrum in question may cease to be necessary for a regional service provider's strategy and/or the regional service provider prefers to deploy the capital it used to acquire the spectrum in other ways. In this case, if there are no regional service providers willing to acquire the spectrum, or acquire it at a reasonable price, then the spectrum will not be deployed and Canadians will not benefit from the licence. Upon reviewing such circumstances, the Minister might decide that the spectrum's sale to an incumbent is preferable to the alternatives. However, if the proposed transfer prohibition is put in place, then transfer applications involving incumbents will not be submitted and the Minister will not have the opportunity to make that decision.

⁴³ *Spectrum Policy Framework for Canada*, DGTP-001-07, June 2007, page 9.

43. ISED may feel that the transfer prohibition is necessary to prevent regional service providers who acquire set-aside spectrum at below-market rates (as was the case with AWS-3) from reselling that spectrum to an incumbent at a large profit (i.e., at market rates). In other words, ISED may consider the transfer prohibition to be necessary to prevent speculation on the part of regional service providers. However, if the auction prices for set-aside spectrum are set at market rates, either by having set-aside-eligible bidders pay the average price per MHz-Pop that is paid in the auction or by having separate auctions for the set-aside and non-set-aside spectrum, as recommended in our response to Question 1B, then this risk disappears and the transfer prohibition is unnecessary.

44. If a regional service provider requires spectrum won at auction for the continued success of its wireless business, then it will deploy that spectrum. However, if a regional service provider chooses not to deploy the spectrum (e.g., for strategic reasons) or cannot deploy the spectrum (e.g., for financial reasons), then it is not in the country's best interest to prevent its transfer to another carrier who will deploy it. The Government's *Framework for Spectrum Auctions in Canada* notes that "auctions are an efficient market-based means of assigning spectrum licences, through a fair and transparent process, to those that value them the most".⁴⁴ Whether the carrier that values the spectrum the most is an incumbent or another regional service provider should not be the primary consideration.

3.5 Question 1E

ISED is seeking comments on its proposal to auction the set-aside spectrum as three separate paired blocks of 5+5 MHz.

45. If ISED proceeds with the implementation of a set-aside, then we recommend that the set-aside spectrum should be auctioned as three separate paired blocks of 5+5 MHz. Having three separate paired blocks provides bidders with the flexibility to acquire different amounts of spectrum and allows them to aggregate spectrum into larger amounts if desired. In addition, as noted by the Department, "it would also provide flexibility for set-aside-eligible bidders to express their valuation for one or more blocks at any point during the auction."⁴⁵

⁴⁴ ISED, *Framework for Spectrum Auctions in Canada*, Issue 3 March 2011, page 7.

⁴⁵ Consultation, paragraph 32.

4.0 LICENCE AREAS

4.1 Question 2

ISED is seeking comments on its proposal to use Tier 2 service areas across the country, except in the three Territories (Yukon, Northwest Territories and Nunavut) where Tier 4 service areas would apply.

46. We agree with the proposal to use Tier 2 service areas across the country, except in the three Territories (Yukon, Northwest Territories and Nunavut), where Tier 4 service areas would apply.

5.0 AUCTION FORMAT AND RULES

5.1 Question 3

ISED is seeking comments on:

- a) the proposal to use generic licences; and**
- b) the proposal to categorize all blocks won by set-aside-eligible bidders as set-aside blocks.**

47. We agree with the proposal to use generic licences. However, we do not support the proposal to categorize all blocks won by set-aside-eligible bidders as set-aside blocks. This would make otherwise "open" spectrum blocks subject to the proposed transferability restrictions raised in Question 1D of the Consultation. As noted above, the proposed transferability restriction contravenes the Government's own spectrum policy framework⁴⁶, places an unnecessary constraint on the Minister's flexibility to manage spectrum resources, and could delay the deployment of spectrum to the detriment of Canadians.

5.2 Question 4

ISED is seeking comments on:

- a) the use of anonymous bidding during the auction; and**
- b) the information that will be disclosed to bidders during the clock rounds, as described in annex A (which would also apply to the CCA with a modified activity rule set out in annex B) and annex C.**

48. Subject to our comments below related to the three auction formats, we agree with the proposal to use anonymous bidding during the auction and the extent of information that will be disclosed to bidders during the clock rounds.

⁴⁶ *Spectrum Policy Framework for Canada*, DGTP-001-07, June 2007, page 9.

5.3 Question 5

ISED is seeking comments on:

- a) The advantages and disadvantages of the three auction formats being considered for the 600 MHz auction:**
- i. Combinatorial clock auction, using the WARP-based activity rule (annex A);**
 - ii. Combinatorial clock auction, using the GARP-based activity rule (annex B);**
 - iii. Enhanced combinatorial clock auction (annex C).**
- b) Where there is a preference for one of the options, respondents are asked to provide a rationale and explanation.**

49. We recommend that the Department adopt the Combinatorial Clock Auction (CCA) that uses the WARP-based activity rule. The Consultation's description of the GARP-based activity rule in the supplementary round states:

The activity rule for bids on packages in the supplementary round complements the activity rule in the clock rounds, encouraging truthful bidding throughout the allocation stage of the auction by ensuring that supplementary bids are consistent with preferences expressed in the clock rounds.⁴⁷

50. However, the GARP-based activity rule is significantly more restrictive than the WARP-based activity rule, and therefore may not always permit – let alone encourage – truthful bidding. The GARP-based activity rule is only guaranteed to allow truthful bidding if all bids are consistent with some implied set of valuations, which must be known in advance and cannot be changed in the course of the auction. The Consultation makes the very strong claim that "it is reasonable that the bidder would possess such a set of implied valuations and would bid in accordance with them."⁴⁸ Such a claim, however, is difficult to sustain.

51. The proposition that bidders know all their valuations upon entering the auction is inconsistent with the original motivations for the CCA design and how auctions actually transpire. If the proposition were true, one could simply have a sealed bid auction. A major motivation for the CCA design is that with many thousands of packages possible, bidders learn about and focus close attention only on the relevant ones during the auction, and might also learn something about values from the bids placed by others. Analysts within a firm that make different assumptions and disagree about valuations can discuss their differences most

⁴⁷ Consultation, Annex B paragraph 7.

⁴⁸ Consultation, Annex B paragraph 4.

effectively later in the auction when they gain clarity about which packages are most relevant. The WARP-based activity rule, by imposing only a rough consistency, leaves room for exploration and revision and allows the clock rounds to perform their function. The GARP-based activity rule does not, and denies the logical foundation of the CCA design.

52. Even with no ambiguity or uncertainty, bidders' preferences are unlikely to be based on valuations alone: most bidders also have either an increasing cost of capital or a simple budget constraint. The more restrictive GARP-based activity rule could make it impossible for such bidders to follow a straightforward strategy in which they would bid for the highest net value package at the current prices, while accounting for their cost of capital and respecting their budget constraint.

53. Moreover, the Consultation's overall description of the CCA states that "the clock rounds allow for price discovery, helping to reduce a bidder's uncertainty regarding the value of the licences," and that "bidders are able to respond to the price changes accordingly, shifting their bids to licences that continue to be consistent with their business objectives."⁴⁹ According to much of the academic literature about auctions, bidders can have *value interdependencies*, which means that their estimates of value might depend on how others bid in the auction. The more restrictive GARP-based activity rule assumes to the contrary that valuations are fixed, and would prevent bidders from adjusting their bids to account for new information. The GARP-based activity rule would preclude price discovery, one of the key advantages of an ascending auction format – an advantage, furthermore, that ISED has explicitly presented as a justification for the three proposed designs.

54. The Department should not adopt the ECCA. The Consultation states that "[u]sing the ECCA may improve incentives for truthful bidding."⁵⁰ However, no theory or evidence for such an improvement is offered, and truthful expression of demand with respect to the clock prices is not generally a bidder's best strategy under the ECCA format. Consider Example 1, which while simpler than an actual auction, demonstrates the logic that there can be incentives to misrepresent demand at the clock prices during the clock stage and achieve lower base prices and a higher payoff than with truthful bidding.

⁴⁹ Consultation, Annex A paragraph 6.

⁵⁰ Consultation, paragraph 77.

Example 1:

There are two homogenous licences in a single region, with a reserve price of \$1 per licence. There are three bidders (each of whom can bid for both available licences) with the following valuations:

$$\begin{aligned} V(\text{Bidder 1, 1 licence}) &= \$7 \\ V(\text{Bidder 2, 1 licence}) &= \$8.5 \\ V(\text{Bidder 3, 2 licences}) &= \$10 \end{aligned}$$

Instead of bidding truthfully in the clock rounds, Bidder 1 chooses to drop out after submitting its Round 2 bid for 1 licence at a price of \$2. Assuming that Bidder 3 bids truthfully, this means that Bidder 2 must submit a supplementary round bid of more than \$8 to win its desired package (its protection price, to fully guarantee that it wins its desired package, is \$11).

Clock round	Price per licence	Bid quantity (value of bid)		
		Bidder 1	Bidder 2	Bidder 3
1	\$1	1 (\$1)	1 (\$1)	2 (\$2)
2	\$2	1 (\$2)	1 (\$2)	2 (\$4)
3	\$3	0	1 (\$3)	2 (\$6)
4	\$4	0	1 (\$4)	2 (\$8)
5	\$5	0	1 (\$5)	2 (\$10)
6	\$6	0	1 (\$6)	0

Bidder 1 benefits from its deviation from truthful bidding. If Bidder 1 submits a supplementary round bid of \$2 for 1 licence and Bidders 2 and 3 bid truthfully, then Bidder 1 wins 1 licence at a price of \$2, earning a very high payoff (valuation less payment) of \$5. Bidder 2 also wins one licence, but at zero payoff (Bidder 2 submits a supplementary round bid of \$8.5, which it pays fully).

55. The Consultation also states that the ECCA format is likely to result in prices that are more consistent and better reflective of opportunity costs:

Conceptually, pricing in the ECCA is broadly similar to the CCA as it sets prices for winners equal to the opportunity costs of the blocks they are allocated (second pricing) by measuring the maximum value that their opponents could have for all available licences ... using the ECCA format is likely to result in prices that are more consistent and better reflections of opportunity costs.⁵¹

56. The ECCA format does not set prices for winners equal to the actual opportunity costs of the blocks they win. As the Consultation describes, prices for winners under the ECCA format are calculated according to the *maximum* valuations that their opponents *could possibly have* for all available licences. Even if the bidders were to bid truthfully, the discount-adjusted prices presented in the clock phase can be very different from true opportunity costs, as demonstrated by Example 2.

⁵¹ Consultation, paragraphs 72-73.

Example 2:

There are seven homogenous licences in a single region, with a reserve price of \$1 per licence. There are three bidders (each of whom can bid for all 7 available licences) with the following valuations:

$$V(\text{Bidder 1, 4 licences}) = \$70$$

$$V(\text{Bidder 2, 4 licences}) = \$38$$

$$V(\text{Bidder 3, 4 licences}) = \$38$$

The three bidders have no value for smaller packages. This provides a simple illustration of super-additive valuations, which are a key motivation for using a combinatorial auction. All three bidders bid truthfully according to their valuations in the clock rounds.

Clock round	Price per licence	Bid quantity (value of bid)		
		Bidder 1	Bidder 2	Bidder 3
1	\$1	4 (\$4)	4 (\$4)	4 (\$4)
2	\$2	4 (\$8)	4 (\$8)	4 (\$8)
...
9	\$9	4 (\$36)	4 (\$36)	4 (\$36)
10	\$10	4 (\$40)	0	0

Before Round 10, Bidder 1 would receive an ECCA discount D_t^j of \$0. Upon conclusion of the clock rounds, Bidder 1 would be offered a protection price of \$67 (generated using the final clock prices of the 3 unsold licenses in the final clock round and their reserve price of \$1). This protection price is also equal to Bidder 1's limit on the supplementary bid amount for its final clock package.

If bidders bid truthfully in the supplementary round, Bidder 1 will win its final clock package at a price of \$67 and receive a payoff of only \$3. But given the truthful bids of Bidder 2 and Bidder 3, Bidder 1 will always pay the price that it bids in the supplementary round.

As one example, if Bidder 1 were to bid only \$40 for 4 licenses (instead of \$67), then it would pay only \$40, receiving a much larger payoff of \$30. Therefore, Bidder 1 has an incentive to reduce its final supplementary round bid for 4 licences below the protection price, at the risk of not winning its final clock round package.

57. Additionally, if there is excess supply upon the conclusion of the clock rounds, then prices are not even notionally determined by opportunity costs: a winning bidder's price may be set equal to its own winning bid. With excess supply in the final clock round, each standing high bidder then will be shown a protection price that adds the final clock price of the unsold licences (less reserve prices) to the final clock price for its final clock package. If the winning packages are unchanged and the same licences remain unsold after the supplementary round, then there

will be no base price adjustment Δ_j , but there will be a markup to the final clock prices of all standing bidders. This could raise the base prices for all winners far beyond the prices produced by a Vickrey auction or an auction with bidder-optimal core prices, even up to the prices that they have bid. This is particularly problematic because the excess supply after the clock phase can be arbitrarily large, even if all bidders bid truthfully.

58. Bidders in the ECCA do not have an incentive to bid truthfully. But even if bidders do bid truthfully and there is no excess supply at the end of the clock rounds, the ECCA prices are not generally equal to opportunity costs: they can be higher, but can never be lower, than the true opportunity cost. If bidders' final demands are determined by ECCA prices that are different from opportunity costs, then that does not promote efficiency, but may price-gouge the winning bidders.

59. The final prices paid under the ECCA format can be quite uncertain if there is excess supply as of the final clock round. The Consultation states:

[B]idders will receive information on their potential second-price- based payment throughout the allocation stage. This significantly reduces the uncertainty that bidders face regarding the eventual base price for a given package ... The bidder will receive this discount on its bid amount if the next round is the final clock round and if there is no excess supply.⁵²

60. However, the calculation of discounts in the clock rounds assumes that there is no excess supply. If instead there are unsold licences after the final clock round, then the final prices can be significantly higher than the stated "potential second-price-based payment," and that possibility means that the ECCA provides very little assurance about the final prices. Moreover, with unsold licences after the clock rounds, a winning bidder's price may be set equal to its supplementary round bid, as in a first-price auction, contrary to the claimed second-price basis of this design.

61. Similarly, if there is excess supply as of the final clock round, even the final allocation under the ECCA format can be quite uncertain. The Consultation states:

In addition, the ECCA would reduce the uncertainty that a bidder faces about its chances of winning following the supplementary round. Each bidder will be provided with the information necessary to submit a supplementary bid that increases the bid on its final clock package by an amount that would guarantee

⁵² Consultation, paragraph 71.

the bidder wins one of the packages on which it bid during the allocation stage. This amount would be based on the highest price that the bidder bid in each service area that has excess supply after the final clock round, and would be less than or equal to the bidder's limit on the supplementary bid amount for its final clock package.⁵³

62. If there are unsold licences as of the final clock round, then the protection price that a bidder would need to submit to be guaranteed to win one of its packages can be very high. In that case, bidders may be unable to submit the corresponding bids, leaving significant uncertainty about the final allocation of licences. Example 2 demonstrates each of these possibilities.

63. There is no peer-reviewed literature, either theoretical or experimental, concerning the ECCA format, and the ECCA format has never been implemented in practice. The Consultation's claims about the properties of the ECCA are unsupported conjectures, which appear to be largely false: ECCA does not generally incentivize truthful bidding or decrease bidder uncertainty. Moreover, ISED's written description of the ECCA format lacks sufficient illustrative numerical examples for a reader even to be confident about the meaning of the rules. Thus, we strongly recommend that this design should not be implemented.

5.4 Question 6

ISED is seeking comments on:

- a) The proposal that winners of more than one block in a single service area be assigned contiguous blocks; and**
- b) The proposed structure of the assignment stage, including the order of the assignment rounds and the combination of service areas into a single assignment round.**

64. We agree that contiguous spectrum is preferable to non-contiguous spectrum in terms of technological efficiency and support the proposal that winners of more than one block in a single service area be assigned contiguous blocks. One of the key benefits of the CCA format is that it removes the exposure problem such that winning bidders will only win contiguous spectrum. We also support the proposed structure of the assignment stage.

⁵³ Consultation, paragraph 76.

5.5 Question 7

ISED is seeking comments on the proposed methodology for incrementing prices during the clock rounds, as described in annex A.

65. We do not support the proposed methodology for increasing prices as described in Annex A of the Consultation. Prices should only increase when there is excess demand for a product. However, the proposed methodology for increasing prices would have the price of the open product increase even when there is no excess demand. Ensuring that the price of the set-aside product will never be set above the price of the open product unnecessarily intervenes with market forces and alters the proper functioning of the price discovery process that the clock rounds are specifically designed to support. This can result in artificially high prices being paid for non-set-aside spectrum which further increases the pricing distortions that arise due to implementing spectrum set-asides. Thus, the Department should amend the proposed methodology such that prices for both the set-aside product and the open product only increase when there is excess demand.

6.0 BIDDER PARTICIPATION

6.1 Question 8

ISED is seeking comments on the proposed Affiliated and Associated Entities rules that would apply to bidders in the 600 MHz auction.

66. We support the proposed Affiliated and Associated rules. The Department has reviewed the Affiliated and Associated Entities rules on numerous occasions and every time has concluded that they are sufficient to maintain auction integrity. Providing entities with an opportunity to bid separately if there is no harm to the integrity of the auction is entirely consistent with regulating to the minimum extent necessary to achieve the underlying policy objective and fostering competition to the greatest extent possible.⁵⁴ Entities that have demonstrated a clear intention to compete against each other in the downstream retail market are motivated to independently source and control their critical network inputs. This leads them to seek access to their own spectrum in order to meet their own subscribers' needs.

⁵⁴ The "Enabling Guidelines" in ISED's *Spectrum Policy Framework for Canada* notes that "Market forces should be relied upon to the maximum extent feasible" (see: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08776.html#s44>). In addition, the Government's *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, SOR/2006-355*, states that "the Commission should (i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and (ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives".

6.2 Question 9

ISED is seeking comments on the proposed rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming 600 MHz auction.

67. We support the proposed rules prohibiting collusion and other communication rules. The current collusion and Affiliated and Associated Entities policies and rules work together to maintain the integrity of the auction process. The policies and rules establish a clear and comprehensive set of behavioural norms that prohibit parties from inappropriately engaging in collusive conduct.

7.0 CONDITIONS OF LICENCE

7.1 Question 10

ISED is seeking comments on its proposal to issue spectrum licences in the 600 MHz band with a 20-year licence term and the proposed wording of the condition of licence below.

The term of this licence is 20 years. At the end of this term, the licensee will have a high expectation that a new licence will be issued for a subsequent term through a renewal process unless a breach of licence condition has occurred, a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises.

The process for issuing licences after this term and any issues relating to renewal, including the terms and conditions of the new licence, will be determined by the Minister following a public consultation.

68. We agree with the proposal to issue spectrum licences with a 20-year licence term and to the proposed wording of the related COL.

7.2 Question 11

ISED is seeking comments on the proposals on the condition of licence related to transferability and divisibility, and the proposed wording of the condition of licence below.

This licence is transferable in whole or in part (divisibility), in both bandwidth and geographic dimensions, subject to ISED's approval. A Subordinate Licence may also be issued in regard to this licence. ISED's approval is required for each proposed Subordinate Licence.

For the first five years of the licence term from the original date of issuance, a set-aside licence obtained by an entity eligible for set-aside spectrum

during the licensing process (i.e. auction) is not transferable to a set-aside-ineligible entity. At all times during the licence term, a licence obtained by an entity eligible for set-aside spectrum during the licensing process is transferable to another entity that was eligible for set-aside spectrum, subject to ISED's approval.

The licensee must make the Transfer Request in writing to ISED. The Transfer Request will be treated as set out in Client Procedures Circular CPC-2-1-23, Licensing Procedure for Spectrum Licences for Terrestrial Services, as amended from time to time.

The licensee must apply in writing to ISED for approval prior to implementing any Deemed Transfer, which will be treated as set out in CPC-2-1-23. The implementation of a Deemed Transfer without the prior approval of ISED will be considered a breach of this condition of licence.

Should the licensee enter into any Agreement that provides for a Prospective Transfer with another holder of a Licence for commercial mobile spectrum (including any Affiliate, agent or representative of the other licence holder), it must apply in writing to ISED for review of the Prospective Transfer within 15 days of entering into the Agreement, which will be treated as set out in CPC-2-1-23. Should ISED issue a decision indicating that the Prospective Transfer is not approved; it will be a breach of this condition of licence for a licensee to remain in an Agreement that provides for the Prospective Transfer for a period of more than 90 days from the date of the decision.

In all cases, the licensee must follow the procedures as outlined in CPC-2-1-23.

All capitalized terms have the meaning ascribed to them in CPC-2-1-23.

69. With one exception, we support the proposed COL related to transferability and divisibility. The exception relates to the following proposed requirement:

For the first five years of the licence term from the original date of issuance, a set-aside licence obtained by an entity eligible for set-aside spectrum during the licensing process (i.e. auction) is not transferable to a set-aside-ineligible entity. At all times during the licence term, a licence obtained by an entity eligible for set-aside spectrum during the licensing process is transferable to another entity that was eligible for set-aside spectrum, subject to ISED's approval.⁵⁵

70. As noted in our response to Question 1D, a COL that prevents a wireless carrier from selling spectrum to a willing buyer would contravene several of the enabling guidelines in the *Spectrum Policy Framework for Canada* and place an unnecessary constraint on the Minister.

⁵⁵ Consultation, paragraph 131.

7.3 **Question 12**

ISED is seeking comments on the proposed deployment condition of licence stated below.

Licensees will be required to demonstrate to the Minister that this spectrum has been put to use to provide services, as specified in table F1 within 5 years of the initial issuance of the licence, as specified in table F2 within 10 years of the initial issuance of the licence, and as specified in table F3 within 20 years of the initial issuance of the licence.

Where a licence is transferred, the requirement for the new licensee to deploy will continue to be based on the initial licence issuance date.

71. We agree with the proposed COL requiring licensees to demonstrate deployment as specified.

7.4 **Question 13**

ISED is seeking comments on proposed conditions of licence outlined in annex G that would apply to licences issued through the proposed auction process for spectrum in the 600 MHz band.

72. We agree with the COLs in annex G with the exceptions noted below.

7.4.1 **Lawful Interception**

73. We do not object to the proposed COL on lawful interception, however, this condition could be impacted by Bill C-59, *An Act respecting national security matters*⁵⁶, introduced by the Government on 20 June 2017. If Bill C-59 is enacted, it is likely that the lawful interception COLs pertaining to all spectrum, will become moot and should be removed. However, to the extent that the lawful interception COL remains, it should be limited to capabilities determined in industry standards and included in commercially available equipment.

7.4.2 **Research and Development**

74. Licensees with \$1 billion or more in annual gross operating revenues from the provision of wireless service in Canada must invest, as a minimum, 2% of their wireless revenues in eligible R&D activities related to telecommunications. Eligible R&D activities are those that meet the definition of scientific research and experimental development (SR&ED) adopted in the *Income Tax Act*.⁵⁷ Licensees with less than \$1 billion in annual revenues are exempt from the R&D expenditure requirement.

⁵⁶ <http://www.justice.gc.ca/eng/csj-sjc/pl/charter-charte/ns-sn.html>.

⁵⁷ Consultation, Annex G, paragraph 10.

75. The proposed R&D condition suffers from a number of weaknesses which, when considered in aggregate, lead to the conclusion that it should be eliminated.

- i) It imposes a regulatory disadvantage in the form of a constraint on the operating flexibility of wireless licensees with limited, if any, evidence that it benefits Canadians or the Canadian wireless industry. In our view, licensees will undertake an appropriate amount of innovation activities (including SR&ED qualifying R&D expenditures) to compete effectively and, therefore, a COL that mandates a prescribed revenue percentage to be spent on R&D activities is unnecessary.
- ii) The condition inappropriately targets a subset of licensees for this regulatory disadvantage. As the COL calculates the R&D spending obligation on a percentage of revenue basis, it would not asymmetrically harm smaller providers. Therefore, if the COL is maintained, there is no valid reason to limit its application to only the largest licensees.
- iii) The 2% spending minimum is out of date. It was imposed on regional carriers in 1991 (26 years ago)⁵⁸ when the wireless industry was in its infancy and industry revenues were less than 1/20th of current levels.⁵⁹ A technology-based industry in an early stage of development, as wireless was in 1991, would be expected to spend a significantly higher portion of its revenues on R&D than a large, well-established industry, as wireless is today. Therefore, if 2% was appropriate 26 years ago, it no longer remains so. In fact, given the large size and success of today's wireless industry, it is inappropriate for ISED to intervene by mandating a percentage of revenues to be spent on this particular activity.

⁵⁸ Canada Gazette Notice No. DGRB-001-09, page 9. Note that the R&D expenditure COL applied to Rogers Cantel beginning in 1983.

⁵⁹ This is a conservative estimate based on available information. Canada's wireless revenue in 2015 (\$22.5B) is reported in the Commission's *Communications Monitoring Report 2016*, page 282, Table 5.5.1. Wireless revenue for 1991 was not readily available. However, the OECD's *Communications Outlook 1996* (found at: <https://books.google.ca/books?id=BJDWAqAAQBAJ&pg=PA222&lpg=PA222&dq=oced+communications+outlook&source=bl&ots=npEI0ukrc&sig=ZquNPFOZye43jvahl0IRWd1oaN0&hl=en&sa=X&ved=0ahUKEwjUoOXZ1YPVAhXL6oMKHSyCCj8Q6AEIUDAI#v=onepage&q=oced%20communications%20outlook&f=false>) provides 1993 data for Canada's annual revenue per cellular subscriber (US\$682, p. 57) and year end subscribers (1.3 million, p. 75). The product of these data result in annual revenues of US\$887M which converts to CDN\$1.1 billion using the US/Canada exchange rate from 1993 (\$1.29, p. 249). If data from 1991 and 2016 were available and used to calculate this figure, the prevailing trends in the data indicate that the revenue variance would be considerably larger.

- iv) The annual reporting requirement related to R&D spending, which provides evidence of compliance with this COL, is a related but additional regulatory burden. It is an example of one regulation giving rise to another regulation.
- v) The condition inappropriately mixes spectrum management regulation and industrial development policy.⁶⁰ As the Government has shown in recent years with various innovation and broadband deployment programs, it has other incentive-based, rather than penalty-based, policy tools at its disposal to encourage desired behaviours from industry participants. In our view, incentive-based policy tools are more consistent with a modern regulatory framework for a successful industry like wireless than penalty-based tools.
- vi) The financial resources required to satisfy the R&D COL, i.e., spending that meets the definition of SR&ED adopted in the *Income Tax Act*, could potentially be more productively spent on other activities. For example, it may be more productive for a licensee to spend an equivalent amount of money to: hire or train new personnel, deploy new and/or improved network capabilities, introduce new wireless applications or services, undertake R&D activities that do not align with the definition in the *Income Tax Act*, or fund consumer promotions (such as handset subsidies) that encourage wireless adoption. In a competitive wireless marketplace like Canada's, these investment decisions are best left to the discretion of each competitor rather than the Government.
- vii) In recent years, the Canada Revenue Agency (CRA) has changed the eligibility rules for SR&ED spending for purposes unrelated to the R&D COL. For example, investments in capital related to R&D activities, such as lab hardware and software, are no longer eligible expenditures under CRA's SR&ED rules. The net effect of these rule changes on licensees' R&D expenditure COLs is to disallow a significant amount of wireless carriers' spending on R&D simply because the activities do not qualify for SR&ED credits. This is an unintended consequence of using a regulatory scheme designed for one purpose (awarding tax credits) for another purpose entirely (satisfying a spectrum COL).

⁶⁰ This issue was raised in a 2006 OECD report entitled "Telecommunication Regulatory Institutional Structures and Responsibilities" (see: <http://www.oecd.org/internet/broadband/35954786.pdf>) which ISED highlighted in section 6.1 of Canada Gazette No. DGRB-001-09, *Consultation on revisions to the framework for spectrum auctions in Canada* (see: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09371.html#DGRB00109.06>).

- viii) The quality of Canada's wireless services is among the highest in the world – and has been for many years. In fact, the Minister of ISED recently observed that "Canada has some of the world's most advanced and efficient telecom networks" and "virtually all Canadians are covered by the latest wireless technologies".⁶¹ In consideration of this, it is unnecessary for the Government to mandate R&D investments. The COL is attempting to fix a problem that does not exist.
- ix) The R&D expenditure COL ignores the large role played by network equipment manufacturers, handset equipment manufacturers and application developers in the R&D of wireless services. These stakeholders work closely with carriers to research and develop new and innovative wireless capabilities but this work is completely unrecognized by the COL.

76. In summary, as a legacy COL that was initiated more than 26 years ago, the R&D spending requirement is both unnecessary and out-of-step with today's modern wireless industry. We recommend that ISED eliminate the COL from all spectrum licence conditions, including those for 600 MHz. By doing so, ISED will provide licensees with greater operating flexibility to address consumers' needs and will be regulating in a manner consistent with the Government's policy to rely on market forces to the maximum extent feasible.⁶²

77. If ISED does not immediately eliminate the R&D spending condition, it should, at a minimum, make two changes to the requirement. First, as noted above, given the scalable nature of a revenue-based regulatory obligation, ISED should significantly lower the revenue exemption threshold to broaden its applicability and make this regulatory requirement more symmetrical among all licensees. Second, the 2% spending requirement should be significantly lowered (e.g., to 1%) in recognition of the changes that the CRA has made to the SR&ED eligibility rules in recent years and the fact that wireless revenues have increased on a massive scale since the spending level was originally put in place.

⁶¹ Speaking Points of the Honourable Navdeep Bains, PC, MP, Minister of ISED, at the 2017 Canadian Telecom Summit, 5 June 2017, available at https://www.canada.ca/en/innovation-science-economic-development/news/2017/06/2017_canadian_telecomsummit.html?=&wbdisable=true.

⁶² The "Enabling Guidelines" in ISED's *Spectrum Policy Framework for Canada* note that "Market forces should be relied upon to the maximum extent feasible" (see: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08776.html#s44>). In addition, the Government's *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, SOR/2006-355*, states that "the Commission should (i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and (ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives".

7.4.3 Mandatory Roaming

78. ISED first made the provision of wholesale roaming services to wireless carriers mandatory in 2008.⁶³ At that time, the Commission had forborne from regulating both retail and wholesale mobile wireless services for many years and was showing no signs of reversing that decision.

79. In TRP 2015-177⁶⁴, the Commission determined that it would mandate the provision, and regulate the rates, of GSM-based wholesale roaming services provided by us, Rogers and Telus to all other wireless carriers. In that same policy, the Commission concluded that it would be inconsistent with the objectives of the *Telecommunications Act* to mandate the provision, or regulate the rates, of other wholesale roaming services or the GSM-based wholesale roaming services provided to us, Rogers and Telus. In other words, in TRP 2015-177, the Commission established duplicative roaming regulations to those contained in ISED's CPC-2-0-17.

80. In consideration of the Commission's investigation into the competitiveness of wholesale roaming markets in Canada, and its decision to regulate the GSM-based wholesale roaming services provided by us, Rogers and Telus to non-national carriers, the proposed COL on mandatory roaming is unnecessary and asymmetrical.

81. A mandatory roaming COL that requires national wireless carriers to provide roaming to other national wireless carriers is at odds with the principles of facilities-based competition and creating incentives to invest in network infrastructure. Specifically, the mandatory roaming COL creates an opportunity for network arbitrage whereby one carrier can make the strategic decision not to invest in or upgrade its own network in favour of roaming on one or more of its competitors' networks.

82. The fact that wholesale roaming rates are commercially negotiated but subject to mandatory arbitration in the event of a dispute effectively means that the rates do not reflect true market value. The rates are, instead, subject to downward pressure because the provision of wholesale roaming services is mandatory.

83. To the extent that ISED's regulation of wholesale roaming services may result in different

⁶³ See CPC-2-0-17, *Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements*, paragraph 7, <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09081.html>.

⁶⁴ Telecom Regulatory Policy CRTC 2015-177, *Regulatory Framework for wholesale mobile wireless services*, paragraph 128.

and/or conflicting commercial outcomes for wireless carriers than the Commission's wholesale roaming regulations, then ISED's proposed COL on mandatory roaming introduces unnecessary regulatory uncertainty for all market participants.

84. In consideration of the above factors, we recommend the removal of the proposed mandatory roaming COL for the licences in question, as well as all other spectrum licences.

7.4.4 Annual Reporting

85. The proposed COLs require licensees to submit an annual report which provides spectrum deployment, financial and other information. We appreciate that ISED must monitor spectrum licensees to fulfill its mandate and that licensee-specific information may be an important element of the monitoring exercise. However, the effort required by licensees to prepare the annual reports is significant and it is uncertain that the value that ISED receives from these reports is commensurate with the effort that licensees expend in their preparation. For example, we estimate that our annual ISED report, which addresses all of our licenced spectrum, requires approximately 200 hours to prepare. We therefore recommend that ISED reduce the regulatory burden on licensees related to annual reporting.

86. One way in which the annual reporting regulatory burden on licensees and ISED alike can be lowered is by reducing the frequency with which the data is collected. For example, information could be collected every five years for 20-year licences and once every two or three years for shorter licence terms. In addition, ISED should consider streamlining the scope and/or amount of information requested in the reports to only those data that are essential to ISED's monitoring activities.

87. As an alternative to regularly scheduled data collection, ISED could modify the COL such that licensees are required to provide information on ISED's request, with appropriate notice. For example, ISED could issue a request for information three months in advance of its due date and customize the request to the department's particular needs for the licences in question. Under this model, the expectation is that only a subset of the current data would be collected and it would be collected on an as-needed basis only (i.e., less frequently than the current annual schedule).

8.0 AUCTION PROCESS

88. We support the proposed auction process with respect to the application to participate, final payment and forfeiture penalties, bidder training and support, and the post-auction licensing process for unassigned licences. However, in terms of the licence renewal process, we recommend that the COL indicate that there is a high expectation of renewal at the end of the initial term and at the end of every subsequent term.

8.1 Question 14

ISED is seeking comments on the proposed opening bids as presented in Table 1.

89. We have no comment on the proposed opening bids as presented in Table 1.

8.2 Question 15

ISED is seeking comments on the proposed eligibility points for spectrum licences in the 600 MHz as outlined in Table 2, and pre-auction deposits as outlined in section 12.4 of the consultation.

90. We have no comment on the proposed eligibility points and pre-auction deposits.

9.0 LICENCE RENEWAL PROCESS

9.1 Question 16

ISED is seeking comments on the proposed renewal process for spectrum licences in the 600 MHz band.

91. In general, we support the proposed renewal process. However, the Consultation states that "following the end of the initial licence term, licensees will have a high expectation that a new licence will be issued for a subsequent term through a renewal process" ⁶⁵ It would be consistent with the Government's policy to modify this expectation that licensees should have a high expectation of renewal at the end of the initial term as well as all subsequent terms, assuming compliance with COLs, the absence of a fundamental reallocation of spectrum to a new service, or the absence of an overriding policy need. Indicating to all stakeholders well in advance of the auction that there is a high expectation of renewal at the end of all licence terms

⁶⁵ Consultation, paragraph 163.

would provide stability and certainty to both licensees as well as investors while at the same time retaining the Minister's authority and ability to take alternative actions in exceptional circumstances.

92. We appreciate the opportunity to provide these comments.

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