

PUBLIC MOBILE INC.

Comments of Public Mobile Inc. in respect of:

Canada Gazette, Part I, February 2011, Decisions on a Band Plan for Broadband Radio Service (BRS) and Consultation on a Policy and Technical Framework to License Spectrum in the Band 2500-2690 MHz (SMSE-005-11)

18 April 2011

Introduction

This submission from Public Mobile is consistent with our recent submission in the consultation respecting the 700 MHz auction process. We are of the strong view that 2500 MHz spectrum should be commercially deployed by new entrant competitors, as this is the most efficient and effective way to ensure that Canadians reap the benefits of sustainable competition.

Public Mobile is a spectrum success story. In the 2008 AWS auction we bought spectrum that no other party believed could be commercially deployed. We are presently offering services in the two largest markets in Canada on our G-Block spectrum. We have raised hundreds of millions of dollars of capital and are constantly expanding our network footprint. However, despite our successes we face a myriad of challenges in a wireless market dominated by incumbent players, and we feel it is imperative that the Department continue to encourage sustainable competition through its policies and auction rules.

Fair and reasonable access to 2500 MHz spectrum will help provide the opportunity for new entrants like Public Mobile to offer high bandwidth data services (including via LTE) to Canadians. Rogers and Bell (and their affiliates) should not be allowed to bid for 2500 MHz spectrum, as they already hold significant quantities in every market across the country. By designing an appropriate auction process for 2500 MHz spectrum, and allowing fair and reasonable access to this spectrum by competitors, Industry Canada holds an important key to the furthering of sustainable competition in Canada.

Public Mobile's proposals to encourage sustainable competition through the 2500 MHz spectrum auction include reasonable approaches to block sizes and tiers; an auction cap of 50 MHz total spectrum; and limits on the ability to participate in the auction if a carrier owns 20 MHz of unused spectrum. We believe these measures are reasonable, and will ensure the Department's goals of more choice and better prices in the wireless services market for Canadians through sustainable competition.

The Department has the opportunity to design auction policies and rules that ensure fair and reasonable access to 2500 MHz spectrum. We hope the Department considers our proposals carefully, and will act boldly to ensure that Canadians continue to enjoy the benefits of real competition in the Canadian wireless market.

1-1 Should the block sizes be uniform in size?

(a) If a uniform size is preferred, what size should be considered?

(b) If a mix of block sizes is preferred, what combinations and arrangements should be considered?

1-2 In the specific geographic regions discussed above and shown in Appendix A, which block size option(s) should be adopted and why is this option(s) preferred over the other options? Should the combinations and arrangements of block sizes be the same or different in different areas? Provide supporting rationale.

Public Mobile supports the Department mandating a mix of block sizes. We suggest the Department divide the available 2500 MHz spectrum into 2x15 MHz blocks and 2x10 MHz blocks in Region A, and 2x15 blocks in Region B. In the alternative, if the Department decides on uniform block sizes, we would recommend 2x10 MHz blocks in both regions. In either situation, uniform or mixed block sizes, we submit that the 20 MHz of unpaired spectrum in Region A should be auctioned as one contiguous block.

Public Mobile's preference for a mix of block sizes, with the 2x15 blocks matched in Regions A and B and 2x10 MHz blocks in the rest of Region A, will allow bidders at auction to maximize the likelihood of being able offer high bandwidth services on the purchased spectrum. Furthermore, splitting the spectrum in such a way (along with our proposal for caps; see our response to Question 3) will allow a minimum of two new entrant providers per service area. Block sizes will have a direct influence on the way competition develops. It is essential to have adequate block sizes in the 2500 MHz band in order to offer robust data services, and there must also be real opportunity for new entrants to acquire this spectrum (as more fully discussed in our responses to the questions concerning "Competition" in this

submission). The creation of block sizes that encourage and foster sustainable competition is critical for the evolution of a dynamic wireless services market in the face of dominant incumbent carriers with vast spectrum reserves – all to the benefit of Canadian consumers and economy as a whole.

In Hong Kong, spectrum in the 2500 MHz band was auctioned in 15 MHz paired block sizes. Certain European countries opted for 5 MHz paired block sizes.¹ Public Mobile is not in favour of an approach that adopts 5 MHz paired blocks, as this situation would result in complications for carriers configuring contiguous 5 MHz blocks efficiently to offer high bandwidth data applications in an effective manner. We are of the belief that carriers utilizing spectrum in the 2500 MHz range require at least 10 MHz of paired spectrum to offer a robust and effective service. 15 MHz paired blocks would be preferable, especially in Region B, where most of the high density urban areas are located.

2500 MHz spectrum is most efficient and effective if it is deployed in densely populated urban areas. While 2500 MHz spectrum has the ability to carry high bandwidth data, it has relatively weak propagation characteristics, and as such is not ideally suited to rural areas (in that about nine to ten towers would be needed to cover an area that one tower would cover utilizing 700 MHz spectrum). The constraining propagation characteristics of the 2500 MHz band could be partially offset by larger block sizes, allowing operators to carry more traffic per cell-site and could support a viable business case for deploying high speed services on this spectrum.

In addition to the propagation characteristics of 2500 MHz spectrum for high density urban areas that would support high bandwidth applications, it is noteworthy that 2500 MHz spectrum provides a clear path to LTE. In a research study by Dot Econ it is stated that:

“Within the 2.6GHz band, LTE ideally requires 2x5MHz carriers Multiple contiguous blocks – between two and four – are preferred, as this will allow for higher speed mobile

¹ Richard Marsden, Eimear Sexton and Arisa Siong “Fixed or flexible? A survey of 2.6GHz spectrum awards” Dot Econ: Economics for a networked world. Discussion Paper, June 2010, Issue 10/01. p.8-14 <www.dotecon.com>.

broadband. LTE users can occupy frequencies immediately adjacent to each other without onerous coordination requirements...”²

Public Mobile believes that in order to offer an effective LTE offering on 2500 MHz spectrum, carriers must have access to a minimum of 10 MHz of paired spectrum in less populated areas, and a minimum of 15 MHz of paired spectrum in more densely populated urban areas.

Block sizes of 2x10 and 2x15 MHz would align with the paths taken by Hong Kong and several European countries³ where commercial LTE networks have been deployed on 2500 MHz. This block size selection would therefore allow Canadian operators to take advantage of existing device ecosystems.

Unpaired spectrum in the 2500 MHz block is suited to asymmetric high speed data applications (e.g. WIMAX or TDD-LTE). Since only 20 MHz of unpaired spectrum is available for auction, dividing it further into smaller block sizes will reduce the attractiveness of this spectrum for high speed services. Public Mobile recommends that the 20 MHz of unpaired spectrum be auctioned as one block, allowing the winner to offer viable broadband services in the unpaired block.

2-1 The Department seeks comments on whether the licensing of 2500 MHz spectrum should be based on uniform tier sizes across all spectrum blocks, or on a mixture of tier sizes.

2-2 Based on your answer above, if a uniform tier size is preferred, what tier size should be adopted? If a mixture of tiers is preferred, please indicate the proposed tier(s) for each spectrum block.

Consistent with Public Mobile’s submission in our comments related to the 700 MHz spectrum consultation, we believe that a mix of Tier II and Tier III is most appropriate for the allocation of 2500 MHz spectrum to be auctioned by Industry Canada. A mixed-tier spectrum plan would allow bidders to manage their business plans for specific geographic regions, and facilitate the planning and deployment of

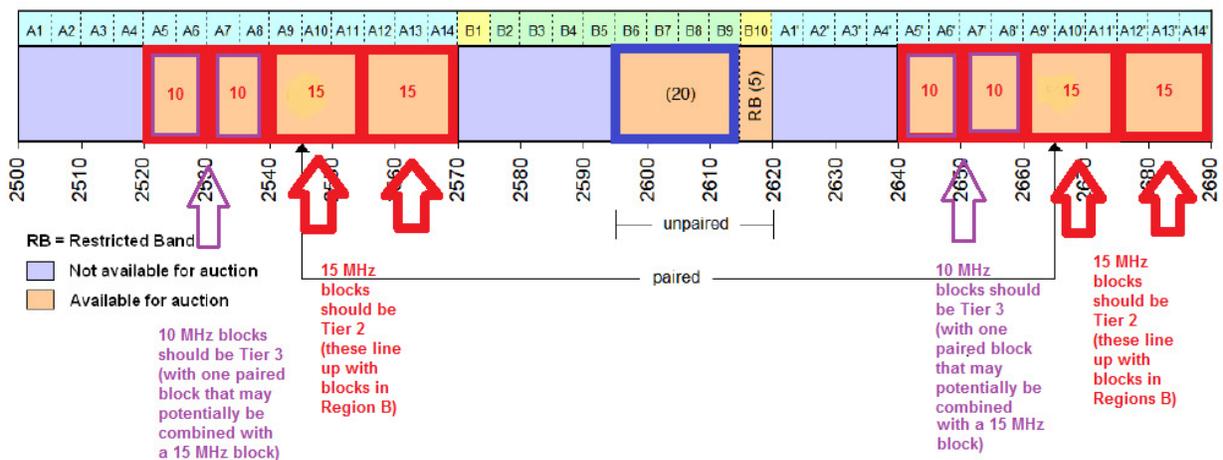
² Ibid, at p.5.

³ Ibid, at p.8-14.

networks with a greater degree of flexibility. This approach to tier sizes was used effectively in the AWS spectrum auction, leading to a reasonable distribution across carriers and licensed areas.

Tier II licenses enable carriers to acquire spectrum covering appropriately large geographies that generally include a mix of urban, suburban and rural populations. As such, this block size is appropriate for both national and regional carriers. Adopting a mixture of Tier II and Tier III sizes allows operators to make strategic choices and bid on geographical areas of most interest to them – resulting in a more efficient use of spectrum. Public Mobile submits that a Tier I strategy should not be used for any bands as it severely limits the options that would be available for operators.

Public Mobile proposes the following mix of Tier sizes for the band plans (the 15 MHz paired Tier 2 blocks in Region A should be mirrored in Region B):



Public Mobile believes the above-described band plan offers block sizes and a tier distribution that will allow for maximum flexibility in bidding, and will ensure that blocks can be acquired that are large enough to offer robust high speed LTE services.

3-1 If the Department determines that there is a need for measures to promote competition in the wireless services market, which of the above mechanisms would be most appropriate in the 2500 MHz band and why should this mechanism be considered over the other? Comments should also indicate if further restrictions should apply.

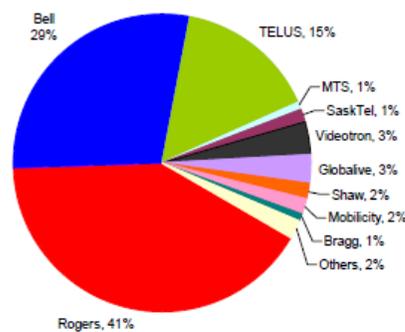
The Canadian wireless market since the 2008 AWS spectrum auction

Since the launch of the new entrants after the AWS auction, Canadian consumers in the markets where new entrant carriers have deployed networks, have had real alternatives to the Incumbent carriers.⁴ However, the competition that the Department facilitated in 2008 is nascent and fragile. Despite the positive impact the new entrants are having on the wireless market, they still only account for an estimated 1.2% market-share combined, contrasted with the combined 94% market-share for incumbent carriers.

The Incumbents not only have overwhelming market shares, they also hold an overwhelming share of wireless spectrum in important markets across Canada. Presently, incumbent carriers hold 85% of total spectrum in Canada.⁵

Figure 4.5 – Summary of Holdings for Cellular, PCS, AWS and BRS spectrum

Percentage of Total Holdings (weighted by population)



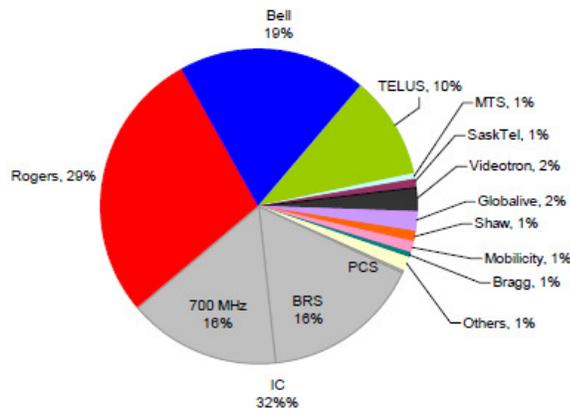
⁴ Public Mobile directs the Department to its submissions in the 700 MHz spectrum consultation for an elaboration of our views about competition in the Canadian wireless services market.

⁵ Industry Canada consultation document, "Notice No. SMSE-018-10 – Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum" p.10.

If the Department sees fit to set-aside ALL spectrum for new entrants that is currently up for auction (700 MHz and 2500 MHz spectrum), incumbent carriers still would hold a significant majority of all spectrum (approximately 59% total).⁶

Figure 4.6 – Summary of Holdings and Available Cellular, PCS, AWS, BRS and 700 MHz spectrum (Total 544 MHz)

Percentage of Total Holdings (weighted by population)



Note: 700 MHz band is based on a maximum of 84 MHz of spectrum available.

In light of the major discrepancy in spectrum holdings between Incumbents and new entrants, the Department should be proactive to encourage and foster to as great an extent possible sustainable competition over the long-run. In order for Canadians to continue to benefit from more competition in wireless in the future, Industry Canada should continue to adopt and promote policies that not only encourage competition but ensure that it is sustainable. This is the only way competition will persist in the long-term and not be a short-lived blip that returns to a state of monopoly supply. The policies adopted in conjunction with the 2008 AWS auction were a critical first step in encouraging a competitive wireless market. By setting aside spectrum for new entrants and by mandating favourable conditions of licence,

⁶ Ibid.

Industry Canada created the environment – for the first time in more than a decade – for new entrants and new competition in the wireless market.

Public Mobile and other new entrants are today bringing real choice in wireless services to Canadians. Prices are lower and wireless penetration is increasing at a faster rate as consumers previously marginalized by the oligopoly incumbent carriers are joining the world of wireless conversation. Public Mobile and certain other new entrants have been leaders in price plan innovation, responsible for introducing the “unlimited” plan concept to the Canadian market.

Public Mobile submits that the Department’s objectives will be delivered most efficiently, effectively and expeditiously if the 2500 MHz spectrum is commercialized by non-incumbent, new entrant carriers. Fair and reasonable access to spectrum is the cornerstone of sustainable competition because spectrum is a key enabler for wireless companies. Public Mobile has very acute spectrum requirements. We do not have excess spectrum. Public Mobile, like most new entrant carriers, is spectrum constrained and we require access to additional spectrum resources.

Rogers, Bell and Inukshuk should not be allowed to bid on 2500 MHz spectrum

Bell, Rogers, and their affiliate Inukshuk (the “Incumbents”) currently hold almost two thirds of 2500 MHz spectrum. The Incumbents should not be permitted to bid on 2500 MHz spectrum in the auction process as they do not have any need for additional spectrum, and it is clearly the policy and intention of the Department to ensure that the 2500 MHz spectrum comprising the auction be allocated and deployed commercially by carriers other than the Incumbents. Rogers and Bell own an inordinately large amount of spectrum relative to other Canadian carriers.⁷ Rogers and Bell have the luxury of transitioning customers onto LTE networks using AWS spectrum that they are currently holding in “inventory.” All of the Incumbents’ spectrum needs, especially for the deployment of LTE, can be met by

⁷ “Over the Rainbow: Thoughts on the Canadian 700 MHz Discussion” SeaBoard Group, March 2011, p.1 & 11.

deploying the spectrum purchased in the 2008 AWS auction (and which was subsequently “warehoused”).

The reason the Department has mandated the return and auction of 2500 MHz spectrum is to promote competition utilizing this band of wireless spectrum. Public Mobile urges the Department to consider that the Incumbents will continue to hold very significant amounts of spectrum in the 2500 MHz band.

Rogers and Bell have shown time and again that they will purchase and lock-up any and all available spectrum at any price to keep it out of the hands of challenger companies. The Incumbents should not be permitted to acquire additional 2500 MHz spectrum through this auction process.

3-2 (a) If the Department were to implement spectrum aggregation limits (caps), should a cap apply to the 2500 MHz band? If a cap is necessary:

(i) What should be the size of the cap and should this be specific to either the paired and/or unpaired spectrum bands?

(ii) Should bidders and their affiliates or associates share the cap?

(iii) How long should the cap remain in effect?

(b) If the Department were to implement a set-aside in the 2500 MHz auction:

(i) Who should be entitled to bid in the set-aside block(s), and should the entitled bidders be restricted to bidding on the set-aside only?

(ii) How much spectrum should be set-aside and which block(s) should be set-aside?

(iii) If the set-aside were to include multiple blocks of spectrum, should these blocks be contiguous?

(iv) What restrictions should be put in place to ensure that policy objectives are met (for example, should trading of the set-aside be restricted for a given time period)?

3-3 Are there other mechanisms that should be considered in the 2500 MHz band to promote competition? If so, how should such mechanisms be applied in this band?

Public Mobile believes the following measures should be adopted to ensure sustainable competition in wireless through the auction of 2500 MHz spectrum:

1. In-auction regional caps that ensures no bidder in the auction can acquire more than 50 MHz (paired or unpaired) 2500 MHz spectrum in any given licence region.
2. Carriers with more than 20 MHz of unused spectrum should not be allowed to bid on any additional spectrum in the auction.

Public Mobile submits that the above mechanisms would be the most effective methods to facilitate competitors having fair and reasonable access to 2500 MHz spectrum which will result in sustainable competition.

Public Mobile submits that no bidder should be allowed to acquire more than 50 MHz total of paired or unpaired 2500 MHz spectrum in any given licence region, because it is widely accepted internationally that 2x15 MHz of 2500 MHz spectrum is more than enough to provide an effective high bandwidth capable wireless offering on this spectrum. Additionally, if the Department accepts Public Mobile's submission respecting block sizes, this would allow a minimum of two new carriers (and up to four new carriers) to access sufficient spectrum to offer services using the 2500 MHz spectrum. Additionally, this level of cap would necessarily exclude parties who already hold large amounts of 2500 MHz spectrum in any licence region, a critical step to encouraging sustainable competition across the country.

Furthermore, any carrier holding 20 MHz or more of any unused PCS, Cellular or AWS spectrum should be precluded from participating in the auction. Carriers with 20 MHz or more of unused spectrum are able to deploy a robust LTE offering without needing additional 2500 MHz spectrum. Allowing carriers with 20 MHz or more of unused spectrum to bid on and acquire 2500 MHz will only perpetuate

the hoarding of spectrum to the detriment of Industry Canada's policy objective to encourage sustainable competition.

3-4 The Government of Canada has undertaken a consultation on potential changes to the foreign investment restrictions that apply to the telecommunications sector. How would the adoption of any of the proposed changes affect your responses to the questions above?

Public Mobile submits that foreign investment restrictions should be liberalized or eliminated.

We believe that eliminating or liberalizing the current ownership and control restrictions in Canada would be positive for the Canadian wireless industry. Changes to the foreign investment restrictions would not cause us to modify our responses to any of the questions in this consultation.

Public Mobile submits that regardless of changes to the ownership and control regime, the Incumbents will pay more to keep new entrants from acquiring additional spectrum than any new entrant, foreign or domestic, would pay to purchase the same spectrum.

Do you plan to use the 2500 MHz spectrum acquired in the auction with, or on behalf of, another entity, which may participate in the auction?

Public Mobile does not plan to use any 2500 MHz spectrum acquired in the auction with, or on behalf of, another entity.

Timing

Public Mobile submits that the 2500 MHz and 700 MHz auctions should take place at the same time or in close succession. If the auctions are held separately, they should be no more than 3 months apart; with the 700 MHz auction coming first (as the 700 MHz spectrum is superior and more valuable

than the 2500 MHz spectrum.) The suggested timing of the auction coincides roughly with the expected mass commercialization of equipment and technology for LTE; which will be a key driver for acquiring 2500MHz spectrum. Further, the 700 MHz and 2500 MHz auctions should be held together to allow for improved network planning, better and more efficient pricing of the spectrum and in order to create business certainty moving forward.