

PUBLIC MOBILE INC.

Reply Comments of Public Mobile Inc.

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)

16 May 2011



Introduction

Having reviewed the comments submitted to Industry Canada in respect of the Department's consultation paper *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)*, Public Mobile would like to focus these reply comments on specific measures we believe should be implemented to encourage competition.

Public Mobile's failure to respond to the particular submission of any party that is or could be adverse to Public Mobile's submissions viewed as a whole should not be taken by the Department as support of, or acquiescence to, such submissions.

Public Mobile submits that the Department should adopt the following 6 elements to form a coherent approach to encouraging sustainable competition through the 2500 MHz spectrum auction:

- 1) A mix of Tier II and Tier III service areas should be chosen
- 2) No mandated roll out requirements for 2500 MHz spectrum
- 3) A mix of 15 MHz and 10 MHz paired blocks, and 20 MHz unpaired blocks should be selected
- 4) Inukshuk and affiliates (i.e., Rogers and Bell) should be barred from participating in the auction
- 5) An in-auction spectrum cap of 50 MHz should be enforced
- 6) Carriers with more than 20 MHz of unused spectrum should not be allowed to participate in the auction.

We believe that caps and set asides must be complemented with a rational tiering and block framework, and only then can the other measures have the intended effect of encouraging sustainable competition.

1) A mix of Tier II and Tier III service areas should be chosen

Public Mobile believes the first step towards encouraging sustainable competition in the context of the 2500 MHz auction is to mandate a mix of Tier II and Tier III licence areas. Adopting a mixture of Tier II and Tier III licence areas will allow operators to make strategic choices and bid on the geographical areas which hold the most interest; in turn making efficient use of the spectrum they acquire. It is encouraging that no parties have argued for Tier 1 or Tier 4 licence areas as those are inappropriate for the efficient deployment of 2500 MHz spectrum.

Public Mobile wishes to reiterate that if the Department were to choose license areas that are not a mix of Tier II and Tier III, it would risk not fulfilling its goal of encouraging sustainable competition. If the Department selects only Tier II licence areas, the licence areas will likely be overly expansive and overwhelmingly rural. This potentially creates a daunting proposition for companies who would prefer to launch service on the 2500 MHz band, as this frequency is best suited for urban deployment. On the other hand, instituting only Tier III licences across the country would create a situation where it is very difficult to cobble together contiguous service areas. In addition, establishing only Tier III areas would render the auction process daunting to administer and risky to participate in. A mixed-tier spectrum plan would allow bidders to manage their business plans for specific geographic regions, and facilitate the planning and deployment of networks with a greater degree of flexibility. This "mixed" approach to tier

sizes was used effectively in the AWS spectrum auction, leading to a reasonable distribution across carriers and licensed areas, and should be replicated in the 2500 MHz spectrum auction process.

2) No roll out requirements for 2500 MHz spectrum are needed

Public Mobile notes that some stakeholders supported mandated rural roll out requirements for 2500 MHz spectrum. Public Mobile wishes to reiterate that 2500 MHz spectrum's propagation characteristics are NOT conducive to efficient rural deployments; no stakeholders who commented in the consultation challenged that fact. 2500 MHz spectrum costs more to deploy (relative to 700 MHz spectrum) because it does not propagate well over longer distances. 2500 MHz spectrum also does not penetrate buildings well. The Department should not mandate roll out requirements for 2500 MHz spectrum, as this would disadvantage new entrant carriers.

Public Mobile supports Shaw's proposal for incentives for rural deployment. As Shaw laid out in their initial 2500 MHz consultation comments;

"... Shaw has recommended that the Department provide rebates on auction fees to bidders that deploy LTE systems (or HSPA+ systems) in areas that are designated as high cost or underserved, such as the geographic serving areas (GSAs) that were identified by the Department as part of its Connecting Rural Canadians program or the serving areas that are defined by the CRTC as "high cost"."¹

If the Department would like to encourage the rural deployment of 2500 MHz spectrum, we believe that given the propagation characteristics of the spectrum, incentives like that proposed by Shaw would be appropriate.

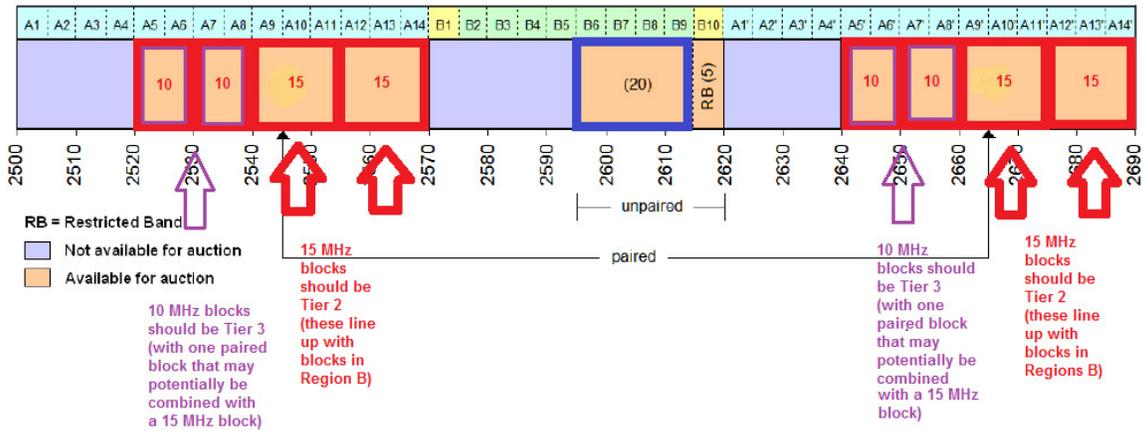
3) A mix of 15 MHz and 10 MHz paired blocks, and 20 MHz unpaired blocks should be selected

Once a reasonable tiering plan is established, setting efficient and effective block sizes is the next element the Department must consider to ensure sustainable competition is encouraged in the Canadian wireless market. We based our mixed block size plan proposition on two main tenets:

- i) Along with our tiering and cap plans, our block size plan would ensure that at a minimum of two new entrants (in addition to Bell and Rogers) would enter each licence area in both Region A and Region B.
- ii) There is precedent from Hong Kong to adopt 15 MHz block sizes, especially for high density urban areas.

Our plan, as illustrated below, allows for block sizes that enable a minimum of two new entrants to deploy networks and services on this band; while at the same time ensuring that each new entrant has sufficient spectrum to launch effective LTE offerings.

¹ Shaw Comments "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)" Para. 76.



It is no surprise that the incumbent national and regional wireless players have argued for smaller 2x5 paired blocks. Bell, Rogers, TELUS and Sasktel have all submitted that 2x5 paired blocks are the ideal block size because of entrenched and substantial 2500 MHz spectrum holdings. They would be able to use spectrum obtained at auction to supplement their already substantial holdings. The precedent of Hong Kong’s recent 2500 MHz auction where large, usable, blocks were auctioned (winners in that auction ended up with 30 MHz of paired spectrum each²) sets an attractive precedent for the Department to follow. Paired 2x5 blocks allow for hoarding, are insufficient spectrum on their own for deploying high bandwidth service, and would be more complicated to auction; therefore, these should not be considered a viable option for the 2500 MHz band in Canada.

As detailed in our original submission, if the Department decides to implement uniform block sizes, Public Mobile supports 10 MHz paired spectrum blocks as has been advocated by MTS Allstream, Quebecor, Shaw and Bragg.

4) Inukshuk and affiliates (i.e. Rogers and Bell) should be barred from participating in the 2500 MHz auction

Inukshuk, and its affiliate shareholders, should be barred from participating in the auction for 2500 MHz spectrum. Regardless of tier sizes, block sizes or a potential in-auction cap; the most important measure the Department must put in place is barring Rogers and Bell from participating in the 2500 MHz spectrum auction. To allow them to bid in this auction would completely negate the purpose of re-farming BRS spectrum from Inukshuk in the first place.

Even with the spectrum returned to Industry Canada, Rogers and Bell through Inukshuk both own a MINIMUM of 10 MHz of paired spectrum in almost every licence area in Canada (aside from Saskatchewan, where Sasktel should be barred from bidding, and the northern territories.) Considering all of the other spectrum assets that Rogers and Bell both control, 10 MHz is sufficient to deploy service on this band, and they should not be allowed to participate in the 2500 MHz spectrum auction.

² Mathew Howett et al. “The availability of spectrum for LTE” OVUM Research reports, www.ovum.com, 18 August 2010, p.20-22.

5) An in-auction spectrum cap of 50 MHz should be enforced

Although most submissions proposed a 40 MHz cap on paired spectrum (MTS and Shaw included unpaired spectrum in their cap), Public Mobile continues to believe that a 50 MHz cap which includes paired and unpaired spectrum, along with our suggested block plan, provides the best opportunity for new entrants to successfully enter the market and deploy services in the 2500 MHz band.

A 50 MHz auction cap, paired with our block size proposal ensures:

- 1) That there are at a MINIMUM 2 new entrants in both Region A and Region B market
- 2) The winner of each spectrum block will have enough spectrum to launch a robust and effective LTE offering without the need to supplement that holding.

Employing a 50 MHz in-auction cap along with a mix of 10 and 15 MHz paired blocks will ensure that the Department will encourage sustainable competition through its auction design and process. However, if the Department decides to implement uniform 10 MHz paired block sizes, Public Mobile would then support MTS's and Shaw's suggestion that there should be a 40 MHz in-auction spectrum cap that includes both paired (FDD) and unpaired (TDD) spectrum.

6) Carriers with more than 20 MHz of unused spectrum should not be permitted to bid for 2500 MHz

All of the points above are directed towards encouraging sustainable competition by designing an auction process that will allow new entrants to offer service on the 2500 MHz spectrum band. The last element of Public Mobile's proposal to encourage sustainable competition is to discourage the hoarding of spectrum. As detailed in Public Mobile's 700 MHz Consultation Reply Comments,³ the Incumbents tried to justify their rationale behind hoarding spectrum. Hoarding, to the disadvantage of new competitors and competition generally, should be proactively discouraged and prevented in the context of the 700 and 2500 MHz auction processes.

A measure that we believe will prohibit spectrum hoarding is to prevent carriers with more than 20 MHz of unused spectrum from bidding in this auction. Before being certified to bid at auction on 2500 MHz spectrum, participating carriers should have to prove that they are using their entire spectrum holdings. If a carrier is "warehousing," "inventorying" or "saving" (i.e., "hoarding") over 20 MHz of any type of spectrum, they should not be allowed to participate in the 2500 MHz auction. This will act as an incentive for carriers to use the spectrum they bought, and be the last step in ensuring that only those that actually need spectrum are allowed to bid on it.

Conclusion

Public Mobile respectfully submits that the Department should carefully consider the proposals Public Mobile has put forward in these reply comments. They are consistent with the Department's policy objectives to encourage sustainable competition in the Canadian wireless services market.

³ Public Mobile Reply Comments "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.6-7.

Without proactive regulation by the Department, Rogers and Bell will undoubtedly purchase the 2500 MHz spectrum in all regions that the Department has mandated to be returned before the current consultation – all to the disadvantage of competitors and competition generally.

We believe that our proposals to encourage competition through the 2500 MHz spectrum auction are reasonable and, most importantly, will allow new competitors to deploy advanced services like LTE on this band. 2500 MHz spectrum is especially valuable for high bandwidth services in urban areas, and is therefore especially valuable to new entrants that have built out urban networks.

In order for new entrants to properly plan their next-generation deployments on the 2500 MHz band, it is imperative that the 700 MHz and 2500 MHz auctions take place in close succession, with the 700 MHz auction coming first. This will allow for network planning, more efficient spectrum pricing, and create business certainties.