

**China Mobile Hong Kong Company Limited**  
**("CMHK")**

**Supplemental Submissions**

**on**

**Arrangements for the Frequency Spectrum in the 1.9-2.2 GHz Band upon  
Expiry of the Existing Frequency Assignments for 3G Mobile Services**

**("Consultation Paper")**

**Date of Submission: 30<sup>th</sup> July, 2012**

In response to the Consultation Paper dated 30<sup>th</sup> March, 12 for Arrangements for the Frequency Spectrum in the 1.9 – 2.2 GHz Band upon Expiry of the Existing Frequency Assignments for 3G Mobile Services (“the Consultation Paper”), we made our submissions on 13<sup>th</sup> July, 2012 (“Submissions”). Now, we would like to further supplement our Submissions as follows.

1. Option 1 proposed that first right of refusal be given to the incumbent 3G operators upon expiry of the term of licence of 3G spectrum. We submit that such first right of refusal is at odds with the market-based approach.
2. As mentioned in our Submissions, there are no good policy reasons to deviate from the market-based approach in spectrum management as enshrined in the Radio Spectrum Policy Framework of April, 2007 (“the Framework”), let alone overriding public policy reasons which are the specific requirements under the Framework. We would emphasize that “overriding” public policy reasons is a much higher standard than simply “good” public policy reasons.

### **General principle of fairness**

3. Spectrum is a national resource that needs to be managed in the public interest. Indeed, as recognised by CA in the Consultation Paper, “*spectrum remains a scarce public resource.*” (para. 10) and “*the amount of 3G spectrum under review in this consultation exercise accounts for as much as about one-quarter of the total spectrum currently assigned for the provision of public mobile services. Furthermore, there will be no supply of new spectrum suitable for the provision of mobile services until the analogue TV service is switched off, which is targeted to be at end 2015.*” (para. 11)
4. In light of the huge quantum of scarce spectrum is at stake here, public interest requires that, for the sake of fairness, the spectrum concerned shall be open to auction by all interested parties. In order to uphold this principle of fairness, it is of utmost importance that all interested parties shall be given an equal and fair chance to obtain such spectrum. If Option 1 is adopted, such core values of fairness and equal chance to participation will definitely be totally destroyed.
5. If there is any unfairness in spectrum management, it will easily be open to accusation by the public as collusion between government and business conglomerates. In particular, shareholders of all the incumbent 3G operators are commercial conglomerates in Hong Kong. Allowing them to continue to renew their current spectrum assignment without going

through an open re-auctioning process will easily be seen as transfer of interests from the government to particular commercial groups. From another angle, we are concerned that the government will be seen as protecting the vested interests of the business conglomerates. At such time when public sentiment is very sensitive about such transfer of interests to commercial conglomerates, such suspicion of collusion and transmission of interests can be avoided by way of opening the current 3G spectrum to all interested parties to bid. Violation of the above basic core value will probably be a cause for judicial review which will further create uncertainties for the entire spectrum assignment exercise.

6. While there may be arguments that new players can enter the market by way of MVNOs, merger and acquisitions or auctioning of other spectrum, this cannot resolve the basic issues of unfairness. Why should an interested party be denied of the chance to bid for the spectrum concerned while allowing the incumbent 3G operators to keep their existing spectrum without going through the bidding process? Under Article 118 of the Basic Law, it stipulates that *“The Government of the Hong Kong Special Administrative Region shall provide an economic and legal environment for encouraging investments, technological progress and the development of new industries.”* Depriving an interested party of the chance to bid for the spectrum (and thereafter investment) is a clear violation of the above article in that the environment so created does not encourage investments or technological progress. It is the major mission and task of CA to create a level playing field so that all interested parties can compete for the concerned spectrum.

### **Efficient spectrum utilization**

7. There may be argument that Hong Kong telecommunications market is competitive enough and there is no need to introduce further entrants in order to enhance competition. Such argument is anti-competitive and we take the view that we should let the market decide the number of players and should not arbitrarily limit the number of players in the market. CA has also casted doubt in paras. 20 and 21 of the Consultation Paper in that it is *“not certain whether the existing assignment of the 120 MHz of 1.9 – 2.2 GHz spectrum among the four incumbent 3G operators has already delivered the optimal consumer benefit...In addition, the amount and profile of spectrum holding is highly asymmetric among the five MNOs.”* Hence, CA concluded that *“It may be possible to attain higher spectral efficiency for the industry as a whole by varying the distribution of the spectrum among incumbent 3G operators or by recruiting new players to the 3G mobile service market.”* We fully support and agree with the above conclusion.

8. In any event, given the re-farming technology and the trend of migrating services and customers to 4G spectrum, we cast doubt on whether it is still necessary for the incumbent 3G operators to keep 15MHz x 2 in order to maintain their services in the coming years.
9. If Option 3 is adopted (which we do not prefer), we would suggest that each incumbent 3G operator be requested to free up 5MHz from its current 15MHz spectrum in such a way that a contiguous band of 10 MHz spectrum (i.e. 5 MHz plus the next 5MHz which is adjacent to it) can be put up for auction. This has the merit of supporting dual carrier design for good performance and optimizing the utilisation of frequency assignments.
10. In respect of calculation method of SUF, we take the view that the above fairness principle shall also apply. We maintain our view, as mentioned in the Submissions, that the SUF shall reflect the market price and this shall be determined through auctioning process. We agree with CA's postulation in para. 34 of the Consultation Paper that the "market mechanism will ensure that the successful bidders which value the spectrum the most will obtain the spectrum by paying the highest SUF, and as a result they will put the spectrum to the most productive uses". The incumbent operators may be inclined to postulate that SUF shall be minimal or even free. We disagree with such postulation as we strongly believe that only market price will drive the operators to utilize their spectrum efficiently in order to stay competitive and maximize their return on investment.
11. Also, such auctioning process will ensure an appropriate financial return to the taxpayer. In Australia, even though they have taken the renewal approach, it was also expected to raise approximately \$3 billion over the next four years from the renewal fees. ([http://www.minister.dbcde.gov.au/media/media\\_releases/2012/015](http://www.minister.dbcde.gov.au/media/media_releases/2012/015)) Those proposing renewal under Option 1 but at the same time attempting to ask for not paying the market price are trying to get the best of both worlds.
12. As a whole, Option 1 may only be justifiable when there is no competing demand for the spectrum in question but this is clearly not the case in Hong Kong as evidenced by CA's findings that "Other than the four incumbent 3G operators, other parties have expressed strong interest in the relevant spectrum." (para. 12 of the Consultation Paper)
13. Option 3 has been tainted with the element of right of first refusal and, hence, we do not prefer that.

### **Impact on incumbent operators**

14. If the re-auction process under Option 1 has impact on the investment plan and network planning of incumbent operators, these operators should have foreseen and subsequently planned long time ago the possible consequences upon expiry.
15. We would reiterate that, as early as 2007, it has been within the contemplation of the incumbent 3G operators that their licence of use of 3G spectrum may not be renewed upon expiry of term which was clearly stated in the Framework (para. 4.2). This shall not be used as an excuse now that the proposed auctioning process will deter investment and innovation. Nor is it responsible to allege that Options 2 and 3 will cause such high uncertainties.
16. In any event, if it is decided next year (i.e. in Oct. 2013) that the current spectrum assignment will not be renewed and shall be re-auctioned in 2016, the incumbent 3G operators will still have at least 3 years to prepare their investment and network plans.
17. Some incumbent 3G operators may lose a portion or all of their frequency assignments but some of them may be able to acquire more spectrum than what they currently have. If the incumbent 3G operators are keen to further invest, Option 2 is the best opportunity for them to get more spectrum.
18. There may be arguments that at the end of the auction (be it under Option 2 or Option 3), some operators may be assigned with spectrums which are different from their current ones, thereby incurring additional operational works and difficulties. To overcome this, we would suggest that those incumbent 3G operators who got a different spectrum may swap it with others to keep the existing spectrum in order to minimize the need for change of equipment. We appreciate such issues and would suggest that OFCA may perform a co-ordinating role in order to minimize the potential impact on the operators concerned.
19. Considering that such spectrum expiry issue is not new, the incumbent 3G operators should have contingency plans in place to minimize the potential impact caused to customers. For instance, prepare plans to migrate customers to their other spectrum just in case they cannot retain their current spectrum.
20. Be it under Option 2 or 3, there may be issue of offloading of traffic to other spectrum. We note that some operators have already re-farmed their spectrum from GSM to 3G or LTE. Consequently, 3G users should be able to enjoy 3G & 4G network services in other spectrum. In other words, 3G network is still retained and 4G already acts as an off-loader

to 3G. The need to retain existing 2.1GHz 3G spectrum has become less significant from technical's perspective. On the other hand, with more 2.6 GHz spectrum auction, more spectrum can be used for 4G and hence customer shift from 3G to 4G has become a viable solution.

21. As rightly pointed by CA in para. 39 of the Consultation Paper, however complicated the process may sound, it can be argued that such a concern is exactly what the market-based approach is supposed to deal with.

### **Continuity of service**

22. In any event, even if Option 1 is adopted, there is no guarantee that the incumbent 3G operators will exercise such rights as it will be "*subject to their payment of the SUF to be specified by SCED and agreement to the licence conditions to be imposed by the TA.*" (para. 17 of the Consultation Paper). On this point, we would like to add that such factors as the general economic climate and other factors such as business decisions of the incumbent 3G operators concerned at the time of expiry will also be critical to the incumbent 3G operators in making their decision. In a word, service continuity will probably be assured only **if** the incumbent 3G operators **all** exercise the right of first refusal to retain their original frequency assignment after Oct. 2016.
23. In addition, our above submissions regarding offloading of traffic will also help to ease the concerns on possible impact on service continuity if Option 1 is not adopted.

### **Encouragement of investment and promotion of innovative services**

24. In para. 19 of the Consultation Paper, CA took the assumption that "*With this certainty in the spectrum assignment for another 15 years, there is little reason for them to hold back on their investment in the 1.9 – 2.2 GHz frequency band.*" On this point, we would like to add that continuous investment will be affected by such other factors as general economic environment at the relevant time and the specific business decision of the incumbent 3G operators. In other words, there is no guarantee that the incumbent 3G operators will continue to invest and innovate even if Option1 is adopted. In particular and as submitted above, considering the trend towards migrating services and customers to 4G, it is doubtful if the incumbent 3G operators will continue to invest in their current 3G network in the years to come. The risk of uncertainties remains.

### **Impact on customers**

25. There are some arguments that Option 2 will adversely affect service continuity. As mentioned above, the incumbent 3G operators will have at least 3 years to plan ahead before expiry of their licence of use of spectrum. Considering that the general contract term of a mobile customer is about 2 years, it is unlikely that the customers will be adversely affected if the incumbent 3G operators can plan in advance now.
26. Also, as submitted above, there is no guarantee that the incumbent 3G operators will exercise their first right of refusal even if Option 1 is adopted. Hence, the risk of disruption to continuity of customers' services remains.
27. From another angle, customers shall not be denied of the choice of new entrants in the market which will bring them more quality and innovative services. In our case, CMHK has a customer base of around [ X ] which occupies a large part of Hong Kong population. If CMHK is able to obtain 3G spectrum, it can much improve its services by bridging the gap between its 2G and 4G services. In other words, a total of [ X ] customers can benefit from this spectrum re-auctioning exercise.

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