



China Mobile Hong Kong Company Limited (“CMHK”)

Response to Consultation Paper

of

**Arrangements for the Frequency Spectrum in the
850/900 MHz and 2.3 GHz Bands upon Expiry of the
Existing Assignments for the Provision of Public
Mobile Services and the Related Spectrum Utilisation
Fee**

5 January 2023

Introduction

1. This submission is made in response to the captioned Consultation Paper jointly issued by the Commerce and Economic Development Bureau (“CEDB”) and the Communications Authority (“CA”) on 17 November 2022.
2. China Mobile Hong Kong Company Limited (“CMHK”) welcomes the opportunity to give its views and comments on the proposed arrangements for re-assignment of the 110 MHz of spectrum including (a) 2 x 10 MHz of spectrum in the 850/900 MHz bands and (b) 90 MHz of spectrum in the 2.3 GHz band which expire in May 2026 and March 2027 respectively upon the existing assignment term.
3. CMHK currently holds 30 MHz in the 2.3 GHz band which amounts to 33% of the total available spectrum in the band. As mentioned in the Consultation Paper that there are growing demands for the spectrum, CMHK shares the view that a market-based re-assignment approach will give any interested party the opportunity to acquire its favorite frequency spectrum in the band according to its own commercial and technical considerations.
4. CMHK believes that the regulatory framework shall help to foster fair and effective competition environment in the telecommunications market. It shall ensure that no single operator would be dominant in terms of spectrum holding on one hand, and on the other hand, spectrum resource would be efficiently utilized so that customers and service users will be benefited in the long term.
5. Against this background, CMHK would like to provide its views and comments with regard to the questions contained in the Consultation Paper.
6. Unless otherwise stated, the terms and definitions in the Consultation Paper will be adopted herein.

Response to the Proposed Re-assignment Arrangements

Scope of Service

Question 1: Do you have any views on re-assigning the spectrum in the 2.3 GHz band for the provision of mobile services only?

7. CMHK has no adverse comments on the proposed scope of service that the spectrum in the 2.3 GHz band will be re-assigned for the provision of mobile services only.
8. The 30 MHz of spectrum in the 2.3 GHz band currently held by CMHK has been used for the provision of mobile services.
9. CMHK agrees that the spectrum in the 2.3 GHz band is valuable resource with its capability to meet both coverage and capacity demands, and therefore will be best utilized for providing mobile services.

Band Plan

Question 2: Do you have any views on the proposal that 20 MHz of spectrum in the 850/900 MHz bands be divided into two paired frequency blocks with a bandwidth of 2 x 5 MHz each?

10. CMHK has no adverse comments with the proposal that 20 MHz of spectrum in the 850/900 MHz bands be divided into two paired frequency blocks with a bandwidth of 2 x 5 MHz each.

Question 3: Do you have any views on the proposal that 90 MHz of spectrum in the 2.3 GHz band be divided into nine frequency blocks with a bandwidth of 10 MHz each?

11. CMHK has no adverse comments with the proposal that 90 MHz of spectrum in the 2.3 GHz band be divided into nine frequency blocks with a bandwidth of 10 MHz each.

Spectrum Cap

Question 4: Do you have any views on the proposal of imposing a spectrum cap of 2 x 5 MHz on each bidder for the re-assignment of 2 x 10 MHz of spectrum in the 850/900 MHz bands?

12. CMHK has no adverse comments with the proposal of imposing a spectrum cap of 2 x 5 MHz on each bidder for the re-assignment of 2 x 10 MHz of spectrum in the 850/900 MHz bands.

Question 5: Do you have any views on the proposed spectrum cap of 50 MHz to be imposed on each bidder for the re-assignment of 90 MHz of spectrum in the 2.3 GHz band?

13. CMHK has reservations on the proposed spectrum cap of 50 MHz on each bidder for the re-assignment of 90 MHz of spectrum in the 2.3 GHz band.

14. It is not clear in the Consultation Paper on how the spectrum cap of 50 MHz was proposed and how it could effectively address the competition concerns.

15. The main concern CMHK has on the spectrum cap is based on if it can allow the assignees to achieve higher spectrum efficiency from the technical perspective.

16. Currently, 2.3 GHz is used for 4G TD-LTE and 4G service will be continuously maintained for a long period of time. The spectrum efficiency of one 10 MHz TD-LTE cell is much lower than that of one 20 MHz TD-LTE cell. The uplink of one 10 MHz TD-LTE cell with 3:1 downlink to uplink ratio can only provide less than 10 Mbps uplink data rate. Limited uplink resources in 10 MHz spectrum can easily lead to congestion.

17. Therefore, CMHK would like the CEDB and CA to re-consider the proposed spectrum cap taking into account the efficiency of the spectrum utilization. CMHK is of the view that a more sensible spectrum cap would be 60 MHz out of the total 90 MHz of the spectrum in the 2.3 GHz band. The proposed spectrum cap of 60 MHz will allow the assignees to achieve higher spectrum efficiency by bidding for maximum 20 MHz x 3 spectrum.

Eligible Bidders

Question 6: Do you have any views on re-assigning the spectrum in the 850/900 MHz and 2.3 GHz bands by allowing all interested parties to apply for participation in the auction?

18. CMHK has no adverse comments with re-assigning the spectrum in the 850/900 MHz and 2.3 GHz bands by allowing all interested parties to apply for participation in the auction.
19. Having said that, CMHK is of the view that all interested parties shall provide sufficient supporting documents that are vetted by OFCA to justify they are able to fulfill service obligation and ensure spectrum usage can be used in an efficient and timely manner. It is also essential that successful bidders of spectrum are imposed obligations such as network coverage rate and performance bond, which are put forth in details in paragraphs 34 to 42 in the Consultation Paper.

Auction Format

Question 7: Do you have any views on the adoption of the SMRA auction format for the re-assignment of the spectrum in the 850/900 MHz and 2.3 GHz bands?

20. CMHK has no adverse comments with the adoption of the SMRA auction format for the re-assignment of the spectrum in the 850/900 MHz and 2.3 GHz bands except for the restriction on frequency swap in the first five years under paragraph 35. Although swapping within the first five years will “generally” not be considered, CMHK does believe that such restriction shall be subject to the free market principles i.e. frequency swaps shall be allowed if it would promote and generate higher spectral efficiency and efficacy.
21. Considering 5G NSA will remain in the foreseeable future and forecast 4G traffic requires prolong period to migrate to 5G based on historic 3G to 4G migration trend. Taking into account the substantial amount investment made by the existing spectrum assignee to provide service to public and to

minimize service degradation in terms of coverage/performance, CMHK propose OFCA to adopt RFR (Right of First Refusal) approach for existing 2.3GHz spectrum assignees in combination of SMRA approach.

Licensing Arrangements

Question 8: Do you have any views on the proposed licensing arrangements as specified in paragraphs 34 to 42 above? In particular, do you have any views on the network and service rollout obligations proposed to be imposed on the successful bidders of spectrum in the 850 MHz, 900 MHz and 2.3 GHz bands, and the associated performance bond or network coverage statistics as the case may be proposed for ensuring compliance?

22. CMHK has no adverse comments with the proposed licensing arrangements as specified in paragraphs 34 to 42 of the Consultation Paper.

23. CMHK agrees with the network and service rollout obligations proposed to be imposed on the successful bidders of spectrum in the 850 MHz, 900 MHz and 2.3 GHz bands, and the associated performance bond or network coverage statistics as the case may be proposed for ensuring compliance.

24. CMHK notes in particular the requirements on the control of interference in the 900 MHz Band as specified in paragraphs 37 to 38. CMHK has no objection to the proposed restrictions of re-assigning the 900 MHz Band for mobile services away from the cross-border rail links and outside the Designated Area.

Spectrum Utilisation Fee

Question 9: Do you have any views on the proposal in relation to the setting and collection of SUF as specified in paragraphs 43 and 44 above?

25. CMHK has no adverse comments with the proposed setting and collection of SUF arrangements as specified in the paragraphs 43 and 44.

26. CMHK supports the option to allow SUF payments to be made by annual

instalment instead of in one lump sum upfront as it gives the successful bidders more financial flexibility and helps with alleviating financial burden.

27. The annual amount could be adjusted every year by a pre-set percentage / the Consumer Price Index (CPI) which aims to reflect the time value of money and inflation to the Government. The CA must note that there is a recent tax dispute which rules that the upfront lump sum SUFs are capital in nature and therefore not deductible. The decision reflects an industry-wide issue and is very likely to impact the costs of telecommunication services. CMHK would like to urge the CA to state clearly and specifically in the Information Memorandum that regardless of its payment method, the SUF is the lease payment to allow the MNOs to use the assigned frequency blocks for the provision of mobile services to the public.
28. CMHK wishes to supplement that the reserve price should be set at a reasonable level, in order to reflect the current economic condition and to leave much room to the 5G operators to develop more 5G applications and to promote Hong Kong as a smart city.

Submitted by
China Mobile Hong Kong Company Limited

5 January 2023