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Paper for the House Committee meeting on 29 June 2018

**Report of Subcommittee on Subsidiary Legislation Relating to
Spectrum Utilization Fees**

Purpose

This paper reports on the deliberations of the Subcommittee on Subsidiary Legislation Relating to Spectrum Utilization Fees ("SUF") in examining the:

- (a) Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) (Amendment) Order 2018 (L.N. 103);
- (b) Telecommunications (Level of Spectrum Utilization Fees) (Second Generation Mobile Services) (Amendment) Regulation 2018 (L.N. 104);
- (c) Telecommunications (Determining Spectrum Utilization Fees by Auction) (Amendment) Regulation 2018 (L.N. 105); and
- (d) Telecommunications (Method for Determining Spectrum Utilization Fee) (Administratively Assigned Spectrum in the 1800 MHz Band) Regulation (L.N. 106).

Background

Spectrum assignments and spectrum utilization fees

2. At present, a total of 198.6 MHz of frequency spectrum, comprising 49.8 MHz in the 900 MHz band and 148.8 MHz in the 1800 MHz band, has

been assigned to four mobile network operators¹ ("MNOs") for the provision of public mobile telecommunications services². These spectrum assignments are due to expire between 19 November 2020 and 29 September 2021. Together with the 0.2 MHz of spectrum in the 900 MHz band and 1.2 MHz of spectrum in the 1800 MHz band which is currently vacant, a total of 200 MHz of spectrum in the 900 MHz and 1800 MHz bands will be available for assignment/re-assignment upon the expiry of the existing assignments ("re-assignment of the 900 MHz and 1800 MHz Spectrum").

3. The Administration had launched two rounds of public consultation in February 2016 and February 2017 to solicit views and comments of the telecommunications industry and other affected persons on the arrangements for the re-assignment of the 900 MHz and 1800 MHz Spectrum and the related SUF.

Re-assignment of spectrum

4. On 19 December 2017, the Communications Authority ("CA") decided to adopt a hybrid administratively-assigned cum market-based approach ("hybrid approach") to re-assign the 200 MHz of spectrum in the 900 MHz and 1800 MHz bands upon the expiry of their existing assignments, as follows:

- (a) each of the four incumbent MNOs will be offered a right of first refusal to be re-assigned 20 MHz of spectrum in the 1800 MHz band ("RFR Spectrum") administratively under the hybrid approach; and
- (b) the remaining 70 MHz of spectrum in the 1800 MHz band and the 50 MHz of spectrum in the 900 MHz band, together with any RFR Spectrum that is not taken up by the incumbent MNOs, will be re-assigned by way of auction (collectively referred to as "Auctioned Spectrum").

5. The existing assignments of spectrum in the 900 MHz band will expire on dates between 19 November 2020 and 11 January 2021. In order to facilitate a smooth handover of any spectrum among the existing and new

¹ China Mobile Hong Kong Company Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telephone Company Limited, and SmarTone Mobile Communications Limited.

² Such mobile telecommunication services include the second, third and fourth generation ("2G", "3G" and "4G") mobile services.

assignees and to simplify administrative arrangements, CA decided that the new spectrum assignment period for all the spectrum in the 900 MHz band will be aligned to commence on 12 January 2021 for a 15-year period until 11 January 2036. For the spectrum in the 1800 MHz band, the new spectrum assignment period will commence on 30 September 2021 for a 15-year period until 29 September 2036³.

Determination of the spectrum utilization fees

6. For the related SUF, the auction reserve price for the Auctioned Spectrum in both the 900 MHz and 1800 MHz bands will be set at \$38 million per MHz. As for the RFR Spectrum which falls in the 1800 MHz band, the SUF per MHz will be set at the average SUF per MHz of the Auctioned Spectrum in the 1800 MHz band as determined by auction, subject to a minimum price of \$54 million per MHz and a cap of \$70 million per MHz.

Spectrum cap

7. Given the large amount of spectrum which will be made available for auction (at least 120 MHz), to avoid unduly high concentration of spectrum holding by any single assignee, a spectrum cap of 90 MHz will be imposed on the aggregate amount of spectrum in the 900 MHz and 1800 MHz bands, with a sub-cap of 20 MHz for spectrum in the 900 MHz band, which may be acquired by any successful bidder in the auction. The spectrum cap will apply to all bidders alike, and cover both the RFR Spectrum and the Auctioned Spectrum.

Legislative amendments

L.N. 103

8. L.N. 103 is made by CA under section 32I(1) of the Telecommunications Ordinance (Cap. 106) after carrying out the consultation required under section 32G(2) of Cap. 106. It amends the Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) Order (Cap. 106Y) by adding a new Part 2B to

³ The alignment will involve an administrative extension of the existing frequency assignment in the 900 MHz band for Hutchison Telephone Company Limited by 53 calendar days from 20 November 2020, and for SmarTone Mobile Communications Limited by eight calendar days from 4 January 2021, so that the term of assignment of all the spectrum in the 900 MHz band would expire on 11 January 2021, subject to their payment of SUF for the use of spectrum during the extended assignment periods.

the Schedule to Cap. 106Y to designate additional frequency bands (namely, 1710 – 1710.5 MHz, 1784.9 – 1785 MHz, 1805 – 1805.5 MHz and 1879.9 – 1880 MHz) in which the use of spectrum is subject to the payment of SUF.

L.N. 104

9. The Telecommunications (Level of Spectrum Utilization Fees) (Second Generation Mobile Services) Regulation (Cap. 106AA) prescribes the level of SUF payable by users of spectrum that falls within the frequency bands set out in Parts 2 and 2A of the Schedule to Cap. 106Y (i.e. the 900 MHz and 1800 MHz bands) for their respective existing assignment periods until 2020/2021.

10. L.N. 104, made by the Secretary for Commerce and Economic Development ("SCED") under section 32I of Cap. 106, amends Cap. 106AA to:

- (a) provide that Cap. 106AA only applies in relation to the use of the relevant spectrum on or before the expiry dates of the relevant existing assignment periods, i.e. 11 January 2021 for 890 – 915 MHz and 935 – 960 MHz set out in Part 2 of the Schedule to Cap. 106Y; and 29 September 2021 for 1710.5 – 1780.1 MHz and 1805.5 – 1875.1 MHz set out in Part 2 of the said Schedule and for the frequency bands set out in Part 2A of the said Schedule; and
- (b) prescribe the level of SUF for the extended period of the relevant existing assignments of spectrum, as mentioned in paragraph 5 above, that falls within the frequency bands set out in Part 2 of the Schedule to Cap. 106Y.

L.N. 105

11. L.N. 105 is made by SCED under section 32I of Cap. 106 to amend the Telecommunications (Determining Spectrum Utilization Fees by Auction) Regulation (Cap. 106AC) to:

- (a) provide for the determination by auction, and the payment, of SUF for using the spectrum
 - (i) in the 900 MHz band set out in the new Schedule 2 to Cap. 106AC for the new assignment term of 15 years commencing on 12 January 2021;

- (ii) in the 1800 MHz band set out in the new Schedule 3 to Cap. 106AC for the new assignment term of 15 years commencing on 30 September 2021;
 - (iii) in the 1800 MHz band set out in the Schedule to L.N. 106 which is not assigned to existing assignee (because the CA's offer to assign the spectrum for a new assignment term of 15 years is not accepted) for the new assignment term of 15 years commencing on 30 September 2021;
- (b) specify the payment of SUF by way of a lump sum payment or in 15 annual instalments; and
- (c) provide for exemption from payment of SUF for the use of the spectrum that falls within certain frequency bands through a base station in a designated area for the sole purpose of providing mobile telecommunications services within the designated area⁴.

L.N. 106

12. L.N. 106 is made by SCED under section 32I of Cap. 106 to provide for the determination of SUF payable by an existing assignee (who has been assigned the spectrum that falls within the 1800 MHz band set out in Parts 2 and 2A of the Schedule to Cap. 106Y) for using the spectrum in the Schedule to L.N. 106 for a period of 15 years from 30 September 2021, if the assignee accepts the CA's offer of assignment of the spectrum.

Commencement

13. L.N. 103 to L.N. 106 were gazetted on 18 May 2018 and tabled in the Legislative Council on 23 May 2018. L.N. 103 to L.N. 106 will come into operation on 13 July 2018.

⁴ According to paragraph 12 of the Legislative Council Brief, the designated areas would be country parks and remote areas.

The Subcommittee

14. At the House Committee meeting held on 25 May 2018, Members agreed that a subcommittee should be formed to examine L.N. 103 to L.N. 106 in detail. The membership list of the Subcommittee is in **Appendix**.

15. Under the chairmanship of Hon Charles Peter MOK, the Subcommittee held one meeting with the Administration on 5 June 2018.

Deliberations of the Subcommittee

Discussion on the general merits of L.N. 103 to L.N. 106

Whether L.N. 103 to L.N. 106 would be affected by an on-going judicial review

16. Members express concerns on whether a recent judicial review lodged by a service operator against CA's and SCED's decisions on spectrum re-assignment and related SUF would affect L.N. 103 to L.N. 106 and relevant implementation work including the spectrum auction. They also query what contingency arrangements the Administration would make in case the court rules in favour of the applicant.

17. The Administration advises that as the judicial review is in progress, the Administration would not speculate the outcome of the judicial review. The Administration would take forward the legislative process and the re-assignment exercise as planned unless the Court directs otherwise.

Installation of base stations in remote area

18. Members note that the Administration has facilitated MNOs in installing base stations in remote areas, including allowing their use of government hilltop sites and buildings at nominal rents. They enquired whether the Administration would facilitate MNOs to use government premises other than hilltop sites for installation of base stations.

19. The Administration advises that if a MNO submits a proposal for using government-owned premises to install base stations, the Office of the Communications Authority would liaise and coordinate with the relevant departments to facilitate the use of the premises by the MNO at nominal rent.

20. In response to further enquiries from members, the Administration supplements that 28 sites have been made available in the country parks and remote areas for use by MNOs to install base stations. The Chairman suggests that the Administration should continue to make available suitable sites and facilitate MNOs to install base stations as the current number of sites provided seems insufficient to meet the needs of the sector.

Use of the re-assigned spectrum for third or fourth generation communications services

21. Members note that the spectrum in the 900 MHz and 1800 MHz bands is originally made available for provision of second generation ("2G") communications services. The Chairman asks whether MNOs have used the spectrum for provision of third generation ("3G") or even fourth generation ("4G") communications services. He also asks if MNOs have refarmed the spectrum for 3G or 4G services.

22. The Administration advises that spectrum in the 900 MHz and 1800 MHz bands is indeed intended for 2G services when it was initially assigned. Over the years, as technology improves, MNOs have gradually used the spectrum for provision of 3G and even 4G services. In fact, only a rather small proportion of the spectrum in the 900 MHz and 1800 MHz bands is still being used for provision of 2G services.

23. In response to the Chairman's enquiry on whether MNOs would be required to reserve some of the re-assigned spectrum for 2G services, the Administration explains that it would be up to MNOs to decide whether and when to phase out 2G and other generations of mobile services based on their respective commercial circumstances. MNOs may apply to CA to terminate their 2G services if the number of subscribers decreases to a level that renders it no longer cost-effective to continue with the service, on condition that appropriate arrangements are in place to migrate the remaining 2G service subscribers.

Release of spectrum for auction

24. The Chairman asks if the Administration could release a larger amount of spectrum from different frequency bands for auction in one exercise instead of releasing a smaller amount in several separate auctions over a short period of time. The Chairman explains that releasing a larger amount of spectrum in a single auction or assignment exercise would allow better planning by MNOs as it would reduce uncertainty on the supply of spectrum.

25. The Administration explains that releasing spectrum for auction whenever it becomes available would ensure effective use of public resource in a timely manner. The Administration would consider assigning spectrum in various bands in one single exercise where appropriate. In the current case, a total of 200MHz of spectrum would be made available for re-assignment, which amounted to 36% of the total spectrum assigned for public mobile telecommunications services.

Section-by-section examination of L.N. 103 to L.N. 106

26. The Administration guides members through the individual sections of L.N. 103 to L.N. 106. Members raise no questions on the sections.

27. The Subcommittee has completed the scrutiny of L.N. 103 to L.N. 106. Members have no objection to L.N. 103 to L.N. 106 and would not propose any amendment to them.

Advice sought

28. Members are invited to note the deliberations of the Subcommittee.

**Subcommittee on Subsidiary Legislation Relating to
Spectrum Utilization Fees**

Membership list

Chairman Hon Charles Peter MOK, JP

Members Hon Paul TSE Wai-chun, JP
 Dr Hon Elizabeth QUAT, BBS, JP
 Hon Alvin YEUNG

(Total : 4 members)

Clerk Mr Daniel SIN

Legal Adviser Ms Vanessa CHENG