

立法會

Legislative Council

LC Paper No. CB(4)753/13-14(03)

Ref: CB4/SS/5/13

Subcommittee on Three Regulations under the Telecommunications Ordinance (Cap. 106) Gazetted on 16 May 2014

Background brief

Purpose

1. This paper provides background information on the three Regulations under the Telecommunications Ordinance (Cap.106) gazetted on 16 May 2014, namely, the Telecommunications (Method for Determining Spectrum Utilization Fee) (Administratively Assigned Spectrum in the 1.9 – 2.2 GHz Band) Regulation ("New Regulation"), the Telecommunications (Determining Spectrum Utilization Fees by Auction) (Amendment) Regulation 2014 ("106AC Amendment Regulation"), and the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) (Amendment) Regulation 2014 ("106X Amendment Regulation"). It also gives a brief account of the views and concerns expressed by the Panel on Information Technology and Broadcasting ("the Panel") on related issues.

Background

2. On 22 October 2001, the Administration assigned to four mobile network operators ("MNOs") ("Existing Assignees") a total of 118.4 MHz of paired spectrum in the 1.9 - 2.2 GHz band in the Third Generation Spectrum ("Relevant 3G Spectrum") for a term of 15 years, which will expire on 21 October 2016 ("Existing Term"). In view of the forthcoming expiry of the existing term and having conducted public consultations and consulted the Panel, the Communications Authority ("CA") announced that a hybrid administratively-assigned cum market-based approach ("the hybrid approach") would be adopted to re-assign the relevant 3G Spectrum for the next assignment term of 15 years from 22 October 2016 to 21 October 2031 ("New Assignment Term"). The Existing Assignees would be offered a right of first refusal to be re-assigned with two-thirds (19.8 MHz) of the Relevant 3G

Spectrum that they held ("RFR Spectrum"). The remaining one-third, together with any spectrum in respect of which the existing assignees did not exercise the right of first refusal, would be re-assigned by way of auction ("the Re-auctioned Spectrum").

The Regulations

3. As legislative amendments are required to put in place of the method for determining the spectrum utilization fee ("SUF") of the Relevant 3G Spectrum for the next assignment term, i.e. from 22 October 2016 to 21 October 2031, the New Regulation, the 106AC Amendment Regulation and 106X Amendment Regulation were gazetted on 16 May 2014 and tabled at the Council meeting on 21 May 2014. Subject to the completion of the negative vetting process, the subsidiary legislation shall come into operation on 11 July 2014.

4. The New Regulation specifies that the SUF for every 1kHz of the spectrum assigned to an Existing Assignee for the New Assignment Term is the higher of \$66,000 or the average SUF obtained for 1kHz of the spectrum auctioned, which is capped at \$86,000.

5. The 106AC Amendment Regulation amends the Telecommunications (Determining Spectrum Utilization Fees by Auction) Regulation (Cap. 106AC) by specifying that the SUF of Re-auctioned Spectrum for the New Assignment Term must be determined by way of an auction or a series of auctions to be held in accordance with Cap. 106AC.

6. The 106X Amendment Regulation amends the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) Regulation (Cap. 106X), a bespoke regulation designed to specify the method for determining the SUF to be paid by the Existing Assignees of the Relevant 3G Spectrum during the Existing Term, by specifying that Cap. 106X only applies in relation to the use of the Relevant 3G Spectrum during the Existing Term so that the SUF for the New Assignment Term will be governed by the New Regulation and the 106AC Amendment Regulation.

Views and concerns expressed by the Panel on Information Technology and Broadcasting

7. On 4 February 2013, the Administration briefed the Panel on the proposed arrangements for re-assignment of the frequency spectrum in the

1.9 – 2.2 GHz band upon expiry of the existing frequency assignments for 3G mobile services in October 2016. The Panel further held a meeting on 27 March 2013 to receive views from representatives of relevant stakeholders on the proposed arrangement. The Administration and the CA subsequently briefed the Panel on 13 January 2014 on the CA's decision to adopt the hybrid approach to re-assign the Relevant 3G Spectrum upon expiry of the existing assignments and the considerations given by the Secretary for Commerce and Economic Development ("SCED") on the setting of SUF for the Relevant 3G Spectrum as announced on 15 November 2013. The major concerns and views are summarized below.

Impact on service continuity

8. At the Panel meeting on 4 February 2013, members noted that the four incumbent 3G operators, namely CSL Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telephone Company Limited and SmarTone Mobile Communications Limited had issued a joint letter dated 1 February 2013 to the Panel expressing objection to the proposed hybrid approach for re-assignment of Relevant 3G Spectrum in the 1.9 – 2.2 GHz band upon expiry of the existing frequency assignments. Members relayed the 3G operators' concern about the impact of the hybrid approach on service continuity.

9. The Administration advised that under the hybrid approach, the incumbent 3G operators could retain two-thirds of the original Relevant 3G Spectrum. This amount of spectrum would enable them to maintain an acceptable level of service quality in respect of most of the existing 3G services. Besides, they would also have the opportunity to take part in the auction to bid for the one third of the spectrum that they had returned to the CA, and to even bid for additional spectrum for building up a contiguous band of 2 x 20 MHz of spectrum, thereby reaping the full potential of the Long Term Evolution-Advanced technology.

10. At the Panel meeting on 27 March 2013, members expressed concern about the Administration's estimate that under the hybrid approach, each incumbent 3G operator might at worst lose one-third of the Relevant 3G Spectrum in the auction. As anticipated by the Office of the Communications Authority ("OFCA"), the degradation of customer service quality in terms of reduction in data download speed would be restricted to at most 18% on average during the transitional period. However, some deputations estimated that the degradation in terms of reduction in data download speed in this regard could be as high as 30 to 40%. Members urged the Administration to take into account technical considerations and

mobile service charge implications in its assessment, including the possible degradation of customer service quality in adopting the hybrid approach.

11. The Administration advised that according to OFCA's projection, there would be a six-fold increase in the total mobile data traffic from 2012 to 2016. On a linear scale, and assuming other factors remained largely unchanged, this would mean that the network capacity needed to increase six times by October 2016 in order to maintain the quality of service as of today. Assuming a straight-line relationship between network capacity shortage and the average data download speed degradation, this would mean that even if the incumbent operators were able to retain all their existing frequency assignments in the 1.9–2.2 GHz band by October 2016, there would be an average drop of about 9% in the data download speed as compared to that in 2012. The Administration advised that only with auction would an opportunity be given to the incumbent operators to critically review their spectrum holding and deliberate on whether they should bid for more spectrum, or invest more on the equipment in order to enhance their service capacities.

Mitigation measures to cope with service degradation

12. At the Panel meeting on 13 January 2014, some members expressed concern about the mitigation measures to be undertaken by the MNOs to cope with any service degradation that might ensue from a reduction in the Relevant 3G Spectrum holding. The Administration advised that mobile data were delivered on both the 3G and 4G networks. While the 3G networks were congested at busy districts during busy hours, there existed ample capacity for mobile data services for serving these locations through the deployment of the 4G spectrum held by the MNOs. The 3G network congestion problem was particularly acute along the MTR lines during busy hours, as the 200 MHz of spectrum in the 2.3 GHz and 2.5/2.6 GHz bands released to the market for the provision of 4G services since 2009 had yet to be deployed by the MNOs. To mitigate the problem, the MNOs and the MTR Corporation had recently entered into agreements for expanding their 4G networks into the new MTR West Island Line. The principles in the agreements would be applied for MNOs to expand their 4G networks into the existing MTR lines.

13. The Administration further advised that in commercial reality, in order for any MNOs which had a smaller Relevant 3G Spectrum holding than before to stay competitive, it might well need to consider further refarming 2G spectrum to provide 3G services and postponing the refarming of spectrum currently deployed for 3G services to 4G, such that more spectrum, and hence more capacity would be available for the provision of its 3G services. The

MNOs might also employ various strategies to maximize customer retention, including actively encouraging 3G customers to take up 4G services, through, for example, price promotion, integrated data plans and handset subsidization.

Spectrum utilization fee

14. At the Panel meeting on 4 February 2013, members expressed concern about the view of the four incumbent 3G operators that if the hybrid approach was adopted, the spectrum charging arrangements proposed under the option could make Hong Kong's SUF amongst the highest in the world, which could affect consumers either through higher prices or less innovation or investment. The Administration advised that SUF in Hong Kong was determined by auction and it would therefore reflect the full market value of the spectrum. The level of SUF varied among spectrum at different frequency bands.

15. At the Panel meeting on 13 January 2014, some members expressed concern about the determination of reserve price of the Re-auctioned Spectrum and the price cap of \$86 million per MHz of the RFR Spectrum. The Administration advised that in determining the reserve price of the Re-auctioned Spectrum at \$48 million per MHz, reference was made to the levels of the SUF of the spectrum as determined by the auctions conducted previously. In order to address the concern of the incumbent 3G operators over the lack of certainty of the SUF of the RFR Spectrum, the Administration agreed that a cap should be placed on the SUF of the RFR Spectrum. Having considered the lower limit of the SUF for the 15-year period for the RFR Spectrum (the lower limit of the per MHz SUF of \$66 million was derived from the actual fee payable by the MNOs for using the Relevant 3G Spectrum in 2015/16), the estimated market price of the Relevant 3G Spectrum, and other factors including providing a level playing field for MNOs and the successful bidders of the Re-auctioned Spectrum, SCED considered it appropriate to set the level of the cap at \$86 million per MHz.

16. The Administration further advised that there existed no direct relationship between the levels of SUF and service charges. Ever since the first spectrum auction in Hong Kong conducted in 2001, another six spectrum auctions for provision of mobile services had been conducted, and the level of SUF had been on a general upward trend. Nevertheless, mobile service charges in Hong Kong remained highly affordable and competitive by international standards.

Proposed acquisition of CSL New World Mobility Limited by HKT Limited

17. At the Panel meeting on 13 January 2014, some members expressed concern about the possible impact of the proposed acquisition of CSL New

World Mobility Limited ("CSLNWM") (the holding company of CSL Limited, an incumbent 3G operator) by HKT Limited, another incumbent 3G operator, on the arrangement of the Relevant 3G Spectrum and the competitive environment of the telecommunications market.

18. The Administration advised that the proposed acquisition constituted "a change in relation to a carrier licensee" under section 7P of the Telecommunications Ordinance ("TO") (Cap. 106), which regulated merger and acquisition activities involving a carrier licensee. Section 7P(6) of the TO allowed a carrier licensee to seek prior consent of the CA to the transaction and set out the test for the CA's consideration of a merger or acquisition (whether the proposed change would have the effect of substantially lessening competition in the telecommunications market). In this regard, HKT Limited was seeking the CA's prior consent under section 7P(7) of the TO to its proposed acquisition of CSLNWM.

19. The Administration further advised that the processing and handling of the section 7P application, a public consultation exercise on which was then being conducted, was separate and distinct from the CA's decision on the arrangements for the Relevant 3G Spectrum, which had been made and announced to the public in mid November 2013. The CA would, in accordance with the legislative requirements under the TO, take into account the competition analysis of OFCA and the views received in the public consultation in making the decision on the section 7P application.

20. On 2 May 2014, the CA announced its decision to give consent, with conditions imposed, to HKT Limited's proposed acquisition of CSLNWM pursuant to section 7P of the TO. One of the conditions imposed was that the merged entity should divest a total of 29.6 MHz of the Relevant 3G Spectrum by not seeking to renew the assignment of and not acquiring the 1920.3 – 1935.1 MHz paired with 2110.3 – 2125.1 MHz spectrum upon expiry of the existing assignment. The divested spectrum would be made available for assignment through auction. For the Relevant 3G Spectrum in the frequency range of 1935.1 – 1949.9 MHz paired with 2125.1 – 2139.9 MHz, the merged entity would be offered a right of first refusal to be re-assigned with the spectrum.

Latest development

21. At the meeting of the House Committee held on 23 May 2014, Members agreed that a subcommittee should be formed to study the New Regulation, the 106AC Amendment Regulation and the 106X Amendment Regulation.

Relevant papers

22. A list of relevant papers is given below –

<http://www.legco.gov.hk/yr12-13/english/panels/itb/agenda/itb20130204.htm>

<http://www.legco.gov.hk/yr12-13/english/panels/itb/agenda/itb20130327.htm>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/agenda/itb20140113.htm>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/papers/itb0113cb4-272-4-e.pdf>

http://www.legco.gov.hk/yr13-14/english/subleg/brief/58-60_brf.pdf

<http://www.legco.gov.hk/yr13-14/english/hc/papers/hc0523ls-56-e.pdf>

Council Business Division 4
Legislative Council Secretariat
3 June 2014