

LEGISLATIVE COUNCIL BRIEF

Telecommunications Ordinance (Chapter 106)

TELECOMMUNICATIONS (DESIGNATION OF FREQUENCY BANDS SUBJECT TO PAYMENT OF SPECTRUM UTILIZATION FEE) (AMENDMENT) ORDER 2004

TELECOMMUNICATIONS (METHOD FOR DETERMINING SPECTRUM UTILIZATION FEES)(THIRD GENERATION MOBILE SERVICES) (AMENDMENT) REGULATION 2004

TELECOMMUNICATIONS (LEVEL OF SPECTRUM UTILIZATION FEES)(SECOND GENERATION MOBILE SERVICES) REGULATION

INTRODUCTION

To inform Members of:

- (a) the Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilization Fee)(Amendment) Order 2004 (“Amendment Order”), at **Annex A**, made by the Telecommunications Authority (“TA”) under section 32I(1) of the Telecommunications Ordinance (Cap.106) (“the Ordinance”) to designate additional sets of frequency bands in which the use of spectrum is subject to payment of spectrum utilization fee (“SUF”);
- (b) the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) (Amendment) Regulation 2004 (“Amendment Regulation”), at **Annex B**, made by the Secretary for Commerce, Industry and Technology (“SCIT”) under section 32I of the Ordinance to make it clear that the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) Regulation (Cap. 106 sub. leg. X) only applies to the four sets of frequency bands that have been designated before the making of the Amendment Order; and

- (c) the Telecommunications (Level of Spectrum Utilization Fees)(Second Generation Mobile Services) Regulation (“the Regulation”), at Annex C, made by SCIT under Section 32I of the Ordinance to prescribe the level of SUF payable for the additional sets of frequency bands designated in the Amendment Order mentioned in (a) above.

JUSTIFICATIONS

2. The concept of SUF was introduced when the Government auctioned four third generation (“3G”) mobile service licences in 2001. The rationale for charging SUF is that as radio spectrum is a scarce public resource, it is reasonable to require licensees to pay for their right to use it to provide commercial public telecommunications services.

3. The SUF for 3G licences are -

- (a) for the 1st to 5th licence year, the annual SUF will be a flat fee of \$50 million per year; and
- (b) for the 6th licence year onward, the annual SUF will be 5% royalty over the annual network turnover of the licensee, subject to a minimum fee that gradually increases from \$60.1 million in 6th licence year to \$151.2 million in 15th licence year.

4. Hitherto, we have not applied SUF to the 11 incumbent second generation (“2G”) mobile services licensees whose licences date back to some 8 or 12 years ago. We consider it appropriate to start charging 2G licensees SUF in the new round of licences upon expiry of their existing ones. First, 2G licensees likewise make use of radio spectrum for commercial services. Indeed, as technology advances, the spectrum allocated to 2G licensees should be able to provide services similar to those offered by 3G networks in a few years’ time. Secondly, the payment of SUF would encourage the efficient use of spectrum since it would provide financial incentives for licensees to return to the Government spectrum which is surplus to their requirement. This is particularly the case for licensees holding both 3G and 2G licences. SUF would motivate them to migrate 2G customers to 3G services and return unused or underutilized spectrum to the Government.

5. However, we do not consider it necessary or appropriate to apply the 3G SUF arrangements in entirety to the new mobile carrier licences to be issued to 2G licensees. The mobile market environment has changed substantially since the auction for 3G licences in 2001. It has become much less bullish. Besides, aspects of the SUF for 3G arising from the auction as a mechanism to issue the 3G licences may not be suitable for 2G SUF. We should take into account these differences in setting the SUF for 2G licensees.

SUF for 2G Licensees

6. After thorough consideration, we propose the SUF for 2G licensees should be set as follows -

- (a) for the first 5 years of the new licence, the annual SUF will be \$145 per kHz of the total radio frequencies then assigned to the licensee; and
- (b) from the 6th licence year onwards to the expiry of the licence, the annual SUF will be 5% of the network turnover, subject to a minimum fee of \$1,450 per kHz of the total radio frequencies then assigned to the licensee.

7. The above SUF for 2G licensees achieves broad consistency with the SUF for 3G licensees. First, the SUF for both types of licences will be at 5% royalty of the network turnover of the licensee from the 6th licence year onwards. Secondly, the “unit rate” in terms of per kHz for calculating the minimum SUF for 2G licensees from the 6th licence year onwards is the same as the SUF for 3G licensees in their first five years, taking into account the total radio frequencies assigned to all 3G licensees in 2001. This broad consistency from 2010 or 2011 onwards is considered necessary, as we expect that in several years’ time, 2G licensees should be able to provide services similar to those offered by 3G licensees after upgrading their networks.

8. The SUF for 2G licensees differs from SUF for 3G licensees in the following ways. First, the minimum SUF for 2G licensees will be charged at a unit rate in terms of a per kHz basis. It would therefore vary with the total width of radio frequencies assigned to the licensee. This feature is fairer to the 2G licensees with less spectrum assignment. It will also encourage licensees to return unused spectrum to the Government in order to reduce SUF payment. Secondly, we have set

the minimum SUF at a fixed level for 2G licensees from the 6th licence year onwards, instead of a rising minimum SUF for 3G licences. We consider the feature of rising minimum SUF unnecessary for 2G licensees as it was a measure to prevent irrational bidding by bidders of 3G licences, e.g., through over-stretching themselves by submitting aggressive bids. In any event, the same 5% royalty on network turnover would enable the Government to capture upside gains. Thirdly, we have set a modest SUF for the first five licence years which is essentially a transitional period for the 2G licensees, taking into account the following factors -

- (a) 3G equipment is not yet available in the frequencies of the 2G frequency bands and the revenue generation capability of 2G licensees is more limited compared to 3G licensees;
- (b) the mobile telecommunications services market is currently very competitive and imposing a high SUF at this stage would drain the licensees of resources that they will need to invest in equipment to upgrade their networks to provide advanced services to match 3G licensees in order to stay in the market; and
- (c) the Government does not charge any SUF to those 2G licensees at present and they would need some time to develop mobile data service and identify additional revenue sources to pay the SUF.

9. Based on the existing frequency allocation, the annual SUF for the first 5 licence years would be \$3.4 million for a PCS licensee and \$2.4 million for a GSM licensee. From the sixth licence year onwards, the annual SUF would be based on 5% of network turnover, subject to the minimum fee of \$34 million for a PCS licensee and \$24 million for a GSM licensee.

10. We consider that the impact of the SUF on end-users should be acceptable, particularly for the first five licence years. The modest SUF for the first five licence years will also provide time for 2G licensees to upgrade their networks in order to develop mobile data services, hence identifying additional revenue sources to pay for the SUF from the 6th licence year onwards, thereby alleviating the impact on consumers. The ability of the licensees to return unused spectrum to the Government will

also help to ensure that they will not incur unnecessary expenditure for spectrum.

THE ORDER AND THE REGULATIONS

11. The Amendment Order designates additional sets of frequency bands in which the use of spectrum is subject to payment of SUF. These sets of frequency bands are currently deployed for provision of 2G mobile telecommunications services. Consultations have been carried out in accordance with section 32G(2) of the Ordinance. The Amendment Regulation proposes consequential changes to reflect the expansion of the Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilization Fee) Order to cover additional frequency bands for 2G licensees.

12. The Regulation –

- (a) specifies the level of SUF for the frequency bands set out in Part 2 of the Schedule to the Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilization Fee) Order; and
- (b) empowers the Telecommunications Authority to take remedial action should a licensee fail to keep proper accounts for the purposes of determining SUF.

LEGISLATIVE TIMETABLE

13. The legislative timetable will be –

Publication in the Gazette	10 December 2004
Tabling in the Legislative Council	15 December 2004
Commencement of the Amendment Order, the Amendment Regulation, and the Regulation	3 February 2005

IMPLICATIONS OF THE PROPOSAL

14. The introduction of 2G SUF will generate additional revenue to the Government starting from year 2006-07. Based on the spectrum to be assigned to the six incumbent operators, the minimum SUF will amount to around \$274 million per annum when the full fee structure kicks in as from year 2012-13 onwards. However, this is an estimate only as licensees may well decide to return part of the assigned spectrum to the Government to reduce their SUF payment.

15. As the proposal will provide financial incentives to licensees to return unused or under-utilized spectrum to the Government, we shall be able to reap additional economic and/or social benefits from the use of the spectrum so released.

16. In summary, the proposal will encourage mobile telecommunications services operators to make efficient use of radio frequency spectrum as a scarce public resource while at the same time provide room for them to invest further to upgrade their networks and services. It will help maintain Hong Kong's competitiveness as a telecommunications hub in the world.

17. The Amendment Order, the Amendment Regulation, and the Regulation are in conformity with the Basic Law, including the provisions concerning human rights. They have no civil service, productivity, or environmental implications. The proposal does not have significant sustainability implications.

18. The Amendment Order, the Amendment Regulation, and the Regulation do not affect the current binding effect of the Ordinance.

PUBLIC CONSULTATION

19. The Office of the Telecommunications Authority consulted the public and the industry in August 2003 and March 2004, respectively, on the licensing arrangements, which include the introduction of SUF, of mobile telecommunications services on expiry of existing 2G licences.

PUBLICITY

20. A statement of the Telecommunications Authority and a press release were issued on 29 November 2004.

ENQUIRIES

21. For any enquiries relating to this Brief, please contact –

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Communications and Technology Branch
Commerce, Industry and Technology Bureau
8 December 2004

**TELECOMMUNICATIONS (DESIGNATION OF
FREQUENCY BANDS SUBJECT TO PAYMENT
OF SPECTRUM UTILIZATION FEE)
(AMENDMENT) ORDER 2004**

(Made by the Telecommunications Authority under section 32I(1) of the Telecommunications Ordinance (Cap. 106) after carrying out the consultation required under section 32G(2) of the Ordinance)

1. Commencement

This Order shall come into operation on 3 February 2005.

2. Designation of frequency bands subject to payment of spectrum utilization fee

Section 2 of the Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) Order (Cap. 106 sub. leg. Y) is amended –

- (a) by repealing “following frequency bands” and substituting “frequency bands set out in the Schedule”;
- (b) by repealing everything after “the spectrum” and substituting a full stop.

3. Schedule added

By adding –

“SCHEDULE [s. 2]

PART 1

MHz	MHz	MHz
1920.3–1935.1	2110.3–2125.1	1914.9–1919.9
1935.1–1949.9	2125.1–2139.9	1904.9–1909.9
1950.1–1964.9	2140.1–2154.9	1909.9–1914.9
1964.9–1979.7	2154.9–2169.7	2019.7–2024.7

PART 2

MHz	MHz
831.59–834.09	876.59–879.09
835–837.5	880–882.5
890–915	935–960
1710.5–1780.1	1805.5–1875.1”.

Telecommunications Authority

7 December 2004

Explanatory Note

This Order designates additional sets of frequency bands in which the use of spectrum is subject to the payment of spectrum utilization fee by the users of the spectrum.

**TELECOMMUNICATIONS (METHOD FOR DETERMINING
SPECTRUM UTILIZATION FEES) (THIRD GENERATION
MOBILE SERVICES) (AMENDMENT) REGULATION 2004**

(Made under section 32I of the Telecommunications
Ordinance (Cap. 106))

1. Commencement

This Regulation shall come into operation on 3 February 2005.

2. Application

Section 3 of the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) Regulation (Cap. 106 sub. leg. X) is amended by repealing “4 sets of frequency bands designated in” and substituting “frequency bands set out in Part 1 of the Schedule to”.

Secretary for Commerce, Industry
and Technology

7 December 2004

Explanatory Note

The Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) (Amendment) Order 2004 (L.N. of 2004) (“the Amendment Order”) designates additional sets of frequency bands in which the use of spectrum is subject to the payment of spectrum utilization fee. This Regulation makes it clear that the Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services)

Regulation (Cap. 106 sub. leg. X) only applies to the 4 sets of frequency bands that have been designated before the making of the Amendment Order.

**TELECOMMUNICATIONS (LEVEL OF SPECTRUM
UTILIZATION FEES) (SECOND GENERATION
MOBILE SERVICES) REGULATION**

(Made under section 32I of the Telecommunications
Ordinance (Cap. 106))

1. Commencement

This Regulation shall come into operation on 3 February 2005.

2. Application

The amount of the spectrum utilization fees to be paid by the users of the spectrum which falls within the frequency bands set out in Part 2 of the Schedule to the Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) Order (Cap. 106 sub. leg. Y) shall be determined in accordance with section 4.

3. Interpretation

In this Regulation –

- (a) “mobile carrier licence” (移動傳送者牌照) means a mobile carrier licence as defined in section 2 of the Telecommunications (Carrier Licences) Regulation (Cap. 106 sub. leg. V); and
- (b) “network turnover” (網絡營業額) , in relation to calculating a spectrum utilization fee, means the revenue arising from or attributable to the provision of any telecommunications services over any telecommunications network using the frequency bands to which that fee relates.

4. Spectrum utilization fee

- (1) The spectrum utilization fees shall be –

- (a) for each of the first 5 years of the period of validity of the relevant mobile carrier licence, \$145 for every 1 kHz or part thereof of the spectrum assigned for use by the licensee; and
 - (b) for each of the remaining years of the period of validity of the relevant mobile carrier licence –
 - (i) 5% of the network turnover in the year concerned; or
 - (ii) \$1,450 for every 1 kHz or part thereof of the spectrum assigned for use by the licensee, whichever is the higher for the year concerned.
- (2) For the purposes of subsection (1), the spectrum assigned for use by the licensee shall be –
- (a) in respect of the first year of the period of validity of the relevant mobile carrier licence, the spectrum assigned for use by the licensee on the issue of the licence; and
 - (b) in respect of each subsequent year of the period of validity of the relevant mobile carrier licence, the spectrum assigned for use by the licensee on each anniversary of the issue of the licence.

5. Action that may be taken by Authority if licensee fails to keep proper accounts for purposes of determining spectrum utilization fees

Where the determination of a spectrum utilization fee relates, whether in whole or in part, to the accounts of a licensee and the accounts have not, in the opinion of the Authority, been kept in accordance with –

- (a) the conditions to which the licence is subject; or
- (b) any accounting practices specified under section 7H of the Ordinance and applicable to the licensee,

then –

- (c) the Authority may –
 - (i) treat the accounts in such manner as he considers necessary to bring them into conformity with those conditions or accounting practices, as the case may be; and
 - (ii) assess the network turnover in relation to the licensee on the basis of the accounts as so treated; and
- (d) the accounts as so treated and the network turnover as so assessed shall be used for the purposes of determining that fee, and the other provisions of this Regulation shall be construed accordingly.

Secretary for Commerce, Industry
and Technology

7 December 2004

Explanatory Note

This Regulation –

- (a) specifies the level of the spectrum utilization fees for the frequency bands set out in Part 2 of the Schedule to the Telecommunications (Designation of Frequency Bands

subject to Payment of Spectrum Utilization Fee) Order (Cap. 106 sub. leg. Y); and

- (b) empowers the Telecommunications Authority to take remedial action should a licensee fail to keep proper accounts for the purposes of determining spectrum utilization fees.