

Joint Statement of the Communications Authority and the Secretary for Commerce and Economic Development

Review of Charging Scheme for Spectrum Utilization Fee for Spectrum Assigned Administratively

8 December 2023

PURPOSE

The charging scheme for spectrum utilization fee (“SUF”) for spectrum assigned administratively (“SUF Charging Scheme”) has been implemented since 1 January 2018, subject to review to be conducted every five years. The Communications Authority (“CA”) and the Secretary for Commerce and Economic Development (“SCED”) have duly considered the findings of the first review on the SUF Charging Scheme (“Review”) since its implementation. This statement promulgates their decisions in respect of the way forward of the SUF Charging Scheme after taking into account the outcome of the Review.

INTRODUCTION

Legislative and Policy Framework

2. In April 2007, the Government promulgated the Radio Spectrum Policy Framework¹ (“the Framework”) which set out the policy considerations and guiding principles in relation to the management of radio spectrum in Hong Kong. The Framework provides that, in principle, SUF will be applicable to all non-government use of spectrum and that a market-based approach in spectrum management will be used whenever the CA considers that there are likely to be competing demand from providers of non-government services.

3. The Framework also provides that for spectrum not released through auction or other market mechanisms, SUF may be set to reflect the opportunity costs of the spectrum. This arrangement is in line with the statutory duty of the CA under section 32G(1) of the Telecommunications Ordinance (Cap. 106) (“TO”) to promote the efficient allocation and use of the radio spectrum as a public resource of Hong Kong, since imposing SUF would give an economic incentive for spectrum users to put the spectrum assigned to them to efficient use and to return unused spectrum to the CA to reduce the cost of using spectrum.

¹ The Framework is available at www.cedb.gov.hk/assets/resources/ccib/policies/spectrum.pdf.

4. Section 32I(1) of the TO empowers the CA to designate the frequency bands in which the use of the spectrum is subject to the payment of SUF following consultation with the telecommunications industry and other affected persons as is reasonable in all the circumstances of the case. Section 32I(2) of the TO empowers SCED to prescribe the levels of SUF and the method for determining the SUF.

The SUF Charging Scheme

5. In 2010, SCED and the former Telecommunications Authority (“TA”) jointly launched a consultation² to seek views of the public and the industry on the proposed implementation of the SUF Charging Scheme. In 2011, having carefully considered the views and comments received during the consultation exercise, SCED and the former TA issued a joint statement entitled “Spectrum Utilization Fee for Spectrum Assigned Administratively”³ (“2011 Statement”) to set out their responses to the submissions and their decisions on the matter. The salient points of the 2011 Statement are as follows –

- (a) SUF should be applied for spectrum assigned administratively, such as those allocated for fixed links, electronic news gathering / outside broadcast (“ENG/OB”) links and satellite uplinks, in frequency bands meeting the following criteria –
 - (i) the frequency band is currently congested, the threshold of which being at least 75% occupied; and
 - (ii) the demand for using the frequency band associated with its current use is expected to grow in the next three to five years, or a high potential demand for the frequency band for alternative use(s) is expected.
- (b) the Least Cost Alternative (“LCA”)⁴ approach should be adopted in deriving the opportunity cost for spectrum assigned administratively, which is used to set the levels of SUF;
- (c) the SUF Charging Scheme would be reviewed every five years;
- (d) a transitional period of five years is adopted, where SUF would be levied two years after the implementation of the SUF Charging Scheme and would

² The relevant consultation paper entitled “Spectrum Utilization Fee for Spectrum Assigned Administratively” is available at www.gov.hk/en/residents/government/publication/consultation/docs/2011/suf.pdf.

³ The 2011 Statement is available at www.coms-auth.hk/filemanager/common/ta20110923.pdf.

⁴ Under the LCA analysis, SUF is to be set at the lowest cost a user will necessarily incur in using alternative means for delivering a service formerly provided through using spectrum in the congested frequency band.

be imposed using a three-year phase-in approach, with 30% of the SUF imposed at the beginning of the third year, 70% imposed at the beginning of the fourth year, and the full payable amount for the fifth year and beyond.

6. In exercise of the powers conferred by sections 32I(1) and (2) of the TO, the CA made relevant amendments to the Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) Order (Cap. 106Y)⁵ (“SUF Order”) and SCED made the Telecommunications (Level of Spectrum Utilization Fee) (Fixed and Other Links) Regulation (Cap. 106AE)⁶ (“SUF Regulation”) to effect the SUF Charging Scheme. Having regard to the fact that the levels of SUF were derived in 2011, SCED reviewed and adjusted the levels of SUF based on inflation⁷ with a view to reflecting the change in value of spectrum over time.

7. The SUF Regulation came into effect on 1 January 2018. The six designated frequency bands and the corresponding prescribed levels of SUF are tabulated at **Annex**.

USE OF ADMINISTRATIVELY ASSIGNED SPECTRUM IN THE DESIGNATED FREQUENCY BANDS

8. Applying SUF for the use of spectrum assigned administratively serves as an economic incentive for spectrum users to make efficient use of the spectrum assigned and review their demand from time to time. To reduce SUF payable, users may return any spectrum to the CA if they no longer need it. Since the spectrum users were informed of the implementation of the SUF Charging Scheme in 2017, a total of 230 links in the designated frequency bands have been returned to the CA, as shown in **Table 1** below. Among those returned links, 87% of them were returned before the levy of SUF. This reveals that the implementation of the SUF Charging Scheme prompted the spectrum users to optimise their spectrum holding, which is conducive to the efficient use of spectrum.

⁵ The Telecommunications (Designation of Frequency Bands subject to Payment of Spectrum Utilization Fee) Order (Cap. 106Y) is available at www.elegislation.gov.hk/hk/cap106Y.

⁶ The Telecommunications (Level of Spectrum Utilization Fee) (Fixed and Other Links) Regulation (Cap. 106AE) is available at www.elegislation.gov.hk/hk/cap106AE.

⁷ The adjustment in price level was based on the Composite Consumer Price Indices from 2012 to 2016 and the headline inflation forecast for 2017. The levels of SUF were adjusted upwards by about 20%.

Table 1 – Links returned by the licensees

Designated frequency bands (MHz)	No. of returned links	
	Before SUF was levied (From 2017 to 2019)	After SUF was levied (From 2020 to 2022)
2 055 – 2 095	0	0
5 875 – 6 425	115	16
6 425 – 7 100	25	1
7 421 – 7 900	31	0
8 275 – 8 500	0	0
10 700 – 11 700	28	14
Subtotal (%)	199 (87%)	31 (13%)
Total	230	

9. The SUF Charging Scheme is also an effective tool to control the use of spectrum in the designated frequency bands. **Table 2** summarises the change in total number of relevant links assigned to the licensees after the levy of SUF. Only two additional fixed links subject to SUF have been assigned in the 11 GHz band since the implementation of the SUF Charging Scheme.

Table 2 – Change in total number of links assigned to the licensees

Designated frequency bands (MHz)	Change in total no. of assigned links from 2020 to 2022
2 055 – 2 095	0
5 875 – 6 425	0
6 425 – 7 100	0
7 421 – 7 900	0
8 275 – 8 500	0
10 700 – 11 700	+2

THE REVIEW

10. In accordance with the decisions of SCED and the former TA as stipulated in the 2011 Statement, the Review has been conducted. The findings of the Review are stipulated in paragraphs 11 – 16 below.

Criteria to Identify the Frequency Bands subject to SUF

11. Having considered that the criteria, set out in the 2011 Statement and recapped in paragraph 5(a) above, were agreed by the majority of respondents from the industry to the consultation in 2010 and used in other similar reviews, it is considered that these criteria remain valid and there is no compelling and justifiable reason to

deviate from these long adopted criteria. It is considered appropriate to use the same criteria as stated in paragraph 5(a) to identify the frequency bands that are subject to SUF.

Frequency Bands subject to Payment of SUF

12. Taking into account the occupancy level as of February 2023 and the demands for future uses, the frequency bands listed in **Table 3** are identified to be subject to payment of SUF. The six identified frequency bands are identical to the prevailing designated frequency bands prescribed in Part 7 of the Schedule to the SUF Order⁸.

Table 3 – Identified frequency bands in 2023

From (MHz)	To (MHz)	Identified in 2023 based on the criteria stated in paragraph 5(a)	Designated frequency band in the SUF Order
2 055	2 095	Yes	Yes
5 875	6 425	Yes	Yes
6 425	7 100	Yes	Yes
7 421	7 900	Yes	Yes
8 275	8 500	Yes	Yes
10 700	11 700	Yes	Yes

Levels of SUF

13. Under section 32I(2)(b) of the TO, the levels of SUF can be derived by any methods as SCED thinks fit. Various factors will be taken into account when deriving the new SUF levels, including the approaches adopted in deriving the prevailing SUF levels, behaviour of the spectrum users, effectiveness of the SUF Charging Scheme, economic outlook of the industry, etc. The following three methods have been considered.

Method 1: Applying the Composite Consumer Price Indices after 2018

14. With the same approach for making adjustment to SUF levels based on inflation as mentioned in paragraph 6 above, Method 1 derives the SUF levels by

⁸ The six frequency bands designated in Part 7 of the Schedule to the SUF Order are: 2055 – 2095 MHz, 5875 – 6425 MHz, 6425 – 7100 MHz, 7421 – 7900 MHz, 8275 – 8500 MHz and 10700 – 11700 MHz.

applying the cumulative changes of Composite Consumer Price Indices after 2018. With this approach, the existing SUF levels would be adjusted upwards by 12%⁹ to produce the price levels for 2023.

Method 2: Performing a Comprehensive LCA Analysis

15. Method 2 derives the SUF levels by performing a comprehensive LCA analysis. The LCA analysis would include the latest costs to be incurred in using alternative means for delivering the same service originally provided in the congested frequency bands, leading to a more reliable evaluation of the latest spectrum value. However, it should be noted that the LCA analysis would incur considerable resource implications and may lead to significant increase in the SUF levels taking into account the increasing costs of some major components of the alternative means.

Method 3: Maintaining the prevailing SUF levels

16. Method 3 maintains the prevailing SUF levels. Considering that the spectrum users are just accustomed to the full levy of SUF imposed in January 2022, it would be reasonable to monitor the changes in spectrum utilization for a longer period. To further avoid any potential adverse impacts brought by the SUF Charging Scheme to the industry, local economic perspective has been duly considered. Although the economy in Hong Kong starts to gradually recover at the time of the Review, the impact of the COVID-19 pandemic on the industry remains and the overall economic outlook for Hong Kong is still uncertain. Maintaining the prevailing SUF would avoid imposition of any additional financial burden on the industry as in Method 1 or Method 2. More importantly, the existing SUF Charging Scheme, together with the prevailing SUF levels, are considered effective in promoting efficient use of spectrum as mentioned in paragraphs 8 and 9 above.

INDUSTRY CONSULTATION

17. A consultation with the industry was conducted through the meeting of the Radio Spectrum and Technical Standards Advisory Committee¹⁰ (“SSAC”) held on 21 June 2023 (“Meeting”), with a view to seeking views and comments on the findings of the Review¹¹. Members of the SSAC and the existing spectrum users paying SUF were invited to join the Meeting and provide written submissions subsequently, if any. The

⁹ The adjustment is based on Composite Consumer Price Indices from 2018 to 2022 and the forecast of inflation for 2023. The calculation is as follows: $(1.024 \times 1.029 \times 1.003 \times 1.016 \times 1.02 \times 1.025) = 1.12$ or +12%.

¹⁰ The terms of reference of the Radio Spectrum and Technical Standards Advisory Committee are to advise the Director-General of Communications on, among others, the planning and management of radio frequency spectrum.

¹¹ The relevant SSAC discussion paper entitled “Review of Charging Scheme for Spectrum Utilization Fee for Spectrum Assigned Administratively” is available at www.ofca.gov.hk/filemanager/ofca/en/content_751/SSAC_Paper_1_2023.pdf.

Meeting discussed at length the details of the Review including the frequency bands subject to SUF and considered the various methods to determine the new SUF levels.

18. By the close of the consultation period, one joint written submission from PCCW Media Limited and HK Television Entertainment Company Limited (collectively referred to as “PCCW”) was received. The following paragraphs set out the responses of the CA and SCED to the views and comments received during the industry consultation.

VIEWS FROM THE INDUSTRY AND THE RESPONSES OF THE CA AND SCED

Criteria to identify the frequency bands that are subject to SUF

Views from the Industry

19. At the Meeting, participants expressed no adverse comment on the criteria used to identify the frequency bands subject to SUF as stated in paragraph 5(a) above.

Responses of the CA

20. As the existing criteria are effective and supported by the industry, the CA decides that the same criteria, as set out in the 2011 Statement and used in other similar reviews, should be used to identify the frequency bands that are subject to SUF, namely –

- (a) the frequency band is currently congested, the threshold of which being at least 75% occupied; and
- (b) the demand for using the frequency band associated with its current use is expected to grow in the next three to five years, or a high potential demand for the frequency band for alternative use(s) is expected.

Frequency Bands subject to Payment of SUF

Views from the Industry

21. At the Meeting, no adverse comment on the six identified frequency bands to be subject to payment of SUF as listed in **Table 3** was received.

22. PCCW suggested in its written submission that two non-contiguous frequency bands of 2055 – 2095 MHz and 2200 – 2290 MHz used for ENG/OB links should be viewed as a single entity for occupancy calculation, on the grounds that the two frequency bands have the same usage and are in close proximity with highly similar physical characteristics. In addition, PCCW opined that spectrum used for ENG/OB

links should be excluded from the scope of applying SUF given the decrease in the number of domestic broadcasters in recent years and the expected shrinking spectrum demand for ENG/OB links.

Responses of the CA

23. The CA notes PCCW's considerations for viewing the two bands as a single entity. However, the suggestion have the effect of circumventing some of the existing SUF charging and undermine the effectiveness of our policy objective to provide an economic incentive for spectrum users to make efficient use of the spectrum assigned and review their spectrum holding from time to time. Having duly considered the suggestions from PCCW, the CA comes to the view that the current designation of the two non-contiguous frequency bands of 2055 – 2095 MHz and 2200 – 2290 MHz should remain unchanged. The CA would like to reiterate that imposing SUF at the congested frequency bands serves a function to encourage the spectrum users to use alternative means, such as migrating to higher frequency and uncongested bands.

24. In regard to the suggested exclusion of spectrum used for ENG/OB links from SUF, it is noted that the occupancy of 2055 – 2095 MHz for ENG/OB links has remained at high level since the consultation in 2010 and there is no sign of reduction of demand in this band. The CA considers it justifiable to maintain the current practice of imposing SUF for ENG/OB links meeting the relevant criteria.

Levels of SUF

Views from the Industry

25. At the Meeting, Asia Satellite Telecommunications Company Limited (“AsiaSat”) and APT Satellite Company Limited (“APT”) supported Method 3 to maintain the prevailing SUF levels, while CLP Power Hong Kong Limited expressed its wish to reduce the SUF levels. APT emphasised the importance of maintaining the currently low SUF levels in Hong Kong which would reinforce the competitiveness of the local business environment. All other participants of the Meeting agreed that “Method 3: Maintaining the prevailing SUF levels” should be the preferred method to derive the SUF levels among the three methods.

26. In its written submission, PCCW supported Method 3 to maintain the prevailing SUF levels.

Responses of SCED

27. In view of the fact that majority of the respondents supported Method 3 to maintain the prevailing SUF levels and taking into account the lingering impact of the COVID-19 pandemic and the uncertain overall economic outlook, SCED decides to adopt Method 3 to maintain SUF levels as those prescribed in the SUF Regulation.

THE DECISIONS OF THE CA AND SCED

28. Having duly considered the findings of the Review and the views of the industry stakeholders,

- (a) the CA decides that the same criteria, as stated below, should be used to identify the frequency bands that are subject to SUF –
 - i. the frequency band is currently congested, the threshold of which being at least 75% occupied; and
 - ii. the demand for using the frequency band associated with its current use is expected to grow in the next three to five years, or a high potential demand for the frequency band for alternative use(s) is expected;
- (b) the CA also decides that the frequency bands subject to the SUF Charging Scheme should be the existing six frequency bands as designated in Part 7 of the Schedule to the SUF Order; and
- (c) SCED decides that the levels of SUF for the SUF Charging Scheme should remain as those prescribed in the SUF Regulation.

**Communications Authority
Secretary for Commerce and Economic Development
8 December 2023**

Designated frequency bands and the prescribed SUF levels

Designated frequency bands (MHz)	Use	SUF payable (in HK\$/MHz/annum)	
		Exclusive use	Non-exclusive use
2 055 – 2 095	ENG/OB links ¹²	21,600	10,800
5 875 – 6 425	Fixed links ¹³ / Satellite uplinks ¹⁴	No exclusive use	432
6 425 – 7 100	Fixed links / Satellite uplinks	21,600 (for frequencies assigned under carrier and SPETS ¹⁵ licences) or 36,000 (for frequencies assigned under WBLRS ¹⁶ licence)	3,600 (for frequencies assigned under carrier and SPETS licences) or 6,000 (for frequencies assigned under WBLRS licences)
7 421 – 7 900	Fixed links		
8 275 – 8 500	Fixed links		
10 700 – 11 700	Fixed links		

¹² An ENG/OB link means a radio transmission path that is established through the use of terrestrial portable or transportable radio equipment for electronic news gathering or outside broadcast services.

¹³ A fixed link means a radio transmission path that is established between fixed locations for radiocommunications purposes.

¹⁴ A satellite uplink means a radio transmission path that is established in the direction from an earth station to a space station of a satellite system.

¹⁵ SPETS licence stands for Self-Provided External Telecommunications System licence.

¹⁶ WBLRS licence stands for Wide Band Link and Relay Station licence.