Spectrum Utilization Fee for Spectrum Assigned Administratively

Response to Consultation Paper

25 February 2011

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INTRODUCTION

1. In this paper, Hong Kong Telecommunications (HKT) Limited ("**HKT**") presents its comments in response to the issues raised in the consultation paper published on 26 November 2010 by the Commerce and Economic Development Bureau (Communications and Technology Branch) and the Office of the Telecommunications Authority ("**OFTA**") concerning *Spectrum Utilization Fee for Spectrum Assigned Administratively* ("**Consultation Paper**"). The proposals outlined in the Consultation Paper are based on results of the study undertaken by a firm of consultants ("**Consultant**") engaged by OFTA to develop a generic system for setting the Spectrum Utilization Fee ("**SUF**") for non-Government use of administratively assigned spectrum and to give advice on implementation matters.

There is no need to levy SUF on administratively assigned spectrum

2. At the outset, HKT does not consider there to be a need to charge SUF for spectrum which has been assigned to operators on an administrative basis. Implementing such a charging scheme will simply increase the costs of fixed line, mobile and satellite operators. This, in turn, may adversely affect service quality, customer service and investment levels. It would logically lead to increased customer complaints as operators in a hyper-competitive market strive to reduce costs. It may also lead to retail price increases.

3. The case for imposing SUF becomes even less convincing when there are service providers using similar spectrum (and providing similar services) who are exempt from payment for so called "public policy" reasons, e.g. the free-to-air broadcasters. The reality is that there are now more fixed line and mobile users in Hong Kong than television viewers so it would clearly be unfair to discriminate against providers of telecommunications services.

4. OFTA's premise for charging SUF is to relieve congestion in some of the spectrum bands by encouraging operators to give up part of their spectrum and make use of alternative methods to provide service. HKT, however, considers that OFTA's concern may be premature. Spectrum released via the digital dividend in the next few years should dispel any fears regarding a shortage of radio frequency.

5. In the meantime, if OFTA is still concerned with spectrum bands being congested then a more sensible approach would be to organize an industry forum to discuss how the radio frequency can be used more efficiently, and issue codes of practice to establish guidelines as to when operators may apply for spectrum. Charging SUF for the use of spectrum will not necessarily resolve any congestion problems.

6. While overall HKT does not agree that there is a need to levy SUF on administratively assigned spectrum at this time, and that such a charge would do more harm than good, in the ensuing sections of this submission, HKT nevertheless outlines

its response to each of the questions raised in the Consultation Paper in the event that OFTA proceeds with the implementation of such a charging scheme.

Spectrum assignment administratively or via competitive auction

7. As an initial step, the basis on which OFTA decides to assign spectrum administratively or via auction needs to be clarified and made more transparent. In accordance with the Radio Spectrum Policy Framework issued in April 2007 ("**Spectrum Policy Framework**"), if there are competing demands for a particular frequency band then it should be assigned via auction, unless there are overriding public policy reasons not to do so. In this Consultation Paper, OFTA's proposal is to apply SUF to spectrum which has been administratively assigned but is "congested".

8. If the spectrum band is congested, however, this could indicate that there are already competing demands for use of the frequency block. On this basis, per the Spectrum Policy Framework, the spectrum band in question should have been put to auction instead of being administratively assigned by OFTA (unless there were public interest reasons not to do so). Assigning spectrum bands which are in high demand directly to operators therefore seems to go against the principles outlined in the Spectrum Policy Framework.

9. While HKT does not support OFTA's proposal to charge SUF for administratively assigned spectrum, it would nevertheless be useful if OFTA were to clarify the circumstances under which spectrum is administratively assigned rather than auctioned in order to avoid any misunderstanding. OFTA should also further explain the so called "public policy" exception. Certainly, for example, there are more subscribers of telecommunications services than free-to-air television viewers in Hong Kong, yet free-to-air broadcasters pay no SUF and do not need to acquire spectrum via auctions. What may have justified a public interest exception years ago may no longer be applicable today.

PRINCIPLES FOR SETTING SUF FOR ADMINISTRATIVELY ASSIGNED SPECTRUM

10. OFTA's proposal is to apply SUF to spectrum which has been assigned administratively (i.e. not via auction) and which is "congested". Certain types of spectrum falling into this category are, however, to be exempt from SUF if the spectrum is:

- Assigned for Government use;
- Required for overriding public policy reasons, such as the provision of terrestrial broadcasting services and mobile services in country parks; or
- Assigned temporarily for technical trials, field tests or special events for a short period of time (e.g. less than 6 months).

11. HKT would make the following comments on the proposed SUF approach and why it may be neither efficient nor current. Firstly, for frequency bands assigned to the Government, there is potential for the spectrum to be used inefficiently if no SUF is required to be paid. Accordingly, it is important for the Government to either pay SUF or have its spectrum utilization regularly reviewed and adjusted accordingly. HKT recognizes that such a review has been carried out recently and that, as a result, over ten frequency bands which were previously reserved for Government use have now been made accessible to non-Government users. Indeed, this review helps prove HKT's point. HKT would encourage OFTA to conduct these reviews more regularly to ensure that the Government is making the most efficient use of the frequency bands and that sufficient spectrum resources are available for use by operators in the industry to develop new services.

12. Secondly, in respect of spectrum that is assigned for overriding public policy reasons, HKT suggests it would be appropriate to critically review what uses now fall into this category. HKT would suggest that frequency bands which are specifically used by an operator to provide service under its Universal Service Obligation be included within this category. On this basis, SUF should not be charged for the use of these spectrum bands since the spectrum is being used solely to enable basic service to be provided to customers, particularly when there are no viable alternative means of providing service. Such a rationale would be consistent with the reasoning used to justify the assignment of spectrum to mobile operators in the country parks free of charge.

13. In the interests of transparency, if a particular block of spectrum is assigned to a party but is exempt from payment of SUF on public policy grounds, OFTA must clearly explain its reasoning. This is to avoid any future misunderstanding as to why no charges were levied for the use of particular frequency bands.

Applying SUF to Congested Bands Only

14. In paragraph 22 of the Consultation Paper, OFTA suggests that the following criteria should be used to define a congested frequency band:

(a) The frequency band is currently at least 75% occupied; and

(b) The demand for using the frequency band associated with its current use is expected to grow over time (for instance, in the next three to five years); or a high potential demand for the frequency band for alternative use is expected.

Question 1:	*Do you agree that SUF for administratively assigned spectrum should only be applicable to the congested frequency bands based on the criteria of congestion given in paragraph 22?*

15. HKT agrees that if SUF is to be levied on administratively assigned spectrum then it should be applied to congested frequency bands only, which OFTA defines as being at least 75% occupied. However, OFTA needs to justify how this percentage was derived. Why is 75% utilization considered congested? Given that OFTA proposes only to review the SUF charging scheme once every five years, this could potentially result in 25% of the frequency band remaining unoccupied for five years as operators will be discouraged from using the spectrum due to the imposition of the SUF. This is a significant amount of spectrum to be left lying idle for such a long period of time. On this basis, HKT considers that the percentage threshold proposed by OFTA be increased to 80% in order to reflect a more reasonable tolerance level.

16. As to expected growth in demand for the spectrum band, this needs to be vigorously analyzed and tested. At the same time, when assessing whether it is possible to accommodate future demand in a particular frequency band, it is important to take into account the availability of other radio frequency arising from the digital dividend.

17. Further, to assist operators in radio planning and determining their potential liability for SUF, OFTA should provide regular updates as to the utilization of each spectrum band so that it is possible to identify which specific bands are likely to be subject to SUF in the near future.

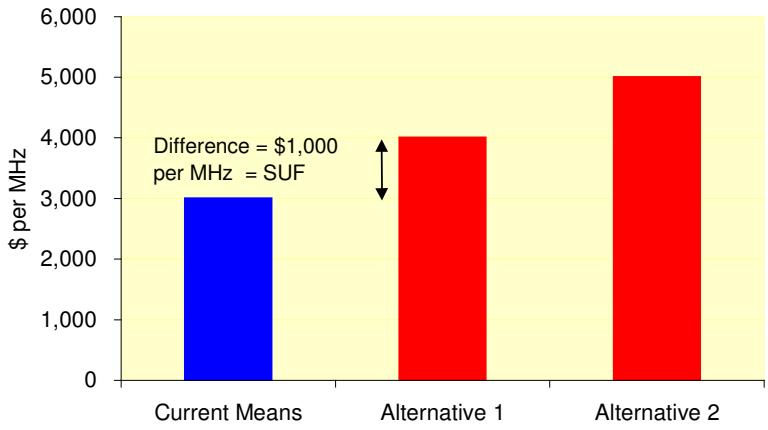
How to Set the Level of SUF

18. In the Consultation Paper, OFTA discusses two approaches to setting the level of the SUF:

(i) The market benchmarks approach (which looks at the prices paid for similar pieces of spectrum in auctions, trades, etc. around the world as a reference to determine the SUF payable); and

(ii) The directly calculated value approach (which computes the SUF based on the cost of providing service using alternative means).

19. OFTA's preference is to adopt the directly calculated value approach. Under this approach, the level of the SUF is calculated with reference to the Least Cost Alternative ("**LCA**"). Using this method, it is assumed that an operator is currently making use of the spectrum to provide service. OFTA then compares the operator's current costs with the costs it would incur in providing service using alternative means, i.e. without use of the spectrum. The SUF is then calculated as the difference between the cost of the current means of providing service and the cost of the lowest alternative, that is, the incremental cost. This can be illustrated in the following diagram:



Question 2:	*Do you agree that SUF levied on the administratively assigned spectrum should be based on the LCA approach?*

20. While the market benchmarks approach does have some appeal because of its apparent simplicity and transparency, difficulties associated with the use of this approach would make it hard to implement. HKT therefore agrees that it may be too difficult to use the market benchmarks approach to derive the level of the SUF as like-with-like benchmarks are not always available.

21. HKT would note that the LCA method does not need to rely on the existence of comparable benchmarks. Setting the SUF on the basis of the incremental cost of providing service using alternative means (without the use of the spectrum) should establish the correct price point for the operator to decide whether or not it would be better to continue using the spectrum (and pay SUF) or give up the spectrum and invest in other means of providing service. This would ensure that spectrum is being used in the most efficient manner.

22. Of course, as an SUF would be paid where one is not, OFTA should ensure that, as far as possible, a relatively aggressive Long Run Average Incremental Cost

("**LRAIC**") costing approach has been adopted in computing the level of the SUF. This should result in SUF levels which provide the correct pricing signals to operators.

FREQUENCY BANDS PROPOSED TO BE SUBJECT TO SUF AND PROPOSED LEVEL OF SUF

23. Using the criteria described earlier to ascertain which frequency bands are "congested", OFTA has identified three types of spectrum which may be subject to SUF:

(i) Fixed links;

(ii) Links used for Electronic News Gathering ("**ENG**") or Outside Broadcast ("**OB**"); and

(iii) Selected satellite links.

These frequency bands are discussed below.

Fixed Links

24. Fixed links are used to provide radio linkage between two specified fixed locations. Within the frequency range used for providing fixed links, the following specific bands have been determined by OFTA as being congested and hence subject to SUF:

6440 – 7100 MHz
7421 – 7900 MHz
7900 – 8000 MHz
8275 – 8500 MHz
10700 – 11700 MHz

25. Under the LCA approach, OFTA is required to examine what are the alternative means of providing service using fixed links. The following options have been identified:

(a) Use of more efficient technology (e.g. higher modulation state);

(b) Use of alternative frequencies that are higher and uncongested;

(c) Use of alternative services (e.g. leased line or satellite link); and

(d) Self provision of fibre or cable.

26. Each of these options, i.e. option (a) to option (d), carries a different incremental cost compared to using the spectrum. These costs have been calculated by the Consultant as shown in the Consultation Paper, with the following option being the lowest cost alternative:

Alternative	Cost of Alternative relative to Cost of Current Means	
	FTNS/ FC/ UC Licence	**WBLRS Licence**
Option (b): Use of alternative frequencies that are higher and uncongested	$2,936 per MHz per annum	5,086 per MHz per annum

27. As the costs will be different[1] depending on whether the operator is presently operating the fixed links under a Fixed Telecommunication Network Services ("**FTNS**")/ Fixed Carrier ("**FC**")/ Unified Carrier ("**UC**") licence or a Wide-Band Link and Relay Station ("**WBLRS**") licence, two separate costs have been derived per the table above.

28. On this basis, by rounding up/ down the calculated incremental costs, OFTA has proposed setting the SUF for fixed links using the specific frequency bands previously mentioned at:

(i) **$3,000** per MHz per annum for fixed links operated under an FTNS/ FC/ UC licence; and

(ii) **$5,000** per MHz per annum if operated under a WBLRS licence.

29. This, however, assumes that the spectrum is being shared by several operators since the same frequency channel can be assigned for reuse six times for fixed links in Hong Kong. If the spectrum is assigned to an operator for exclusive use, then the SUF should be six times the calculated cost, that is:

(i) ($2,936 x 6 = $17,616), i.e. **$18,000** per MHz per annum for FTNS/ FC/ UC licensees; and

(ii) ($5,086 x 6 = $30,516), i.e. **$30,000** per MHz per annum for WBLRS licensees.

Question 3: Do you agree with the approach on setting the SUF for congested frequency bands for fixed links mentioned in the above paragraphs?

30. HKT agrees with the general approach adopted by OFTA in setting the SUF. However, OFTA should look into whether there is any scope for lower figures to be

[1] Due to the licence fees being different, including the fee component relating to the management of the spectrum.

derived if a more aggressive LRAIC costing approach were to be adopted. Lower SUF levels would greatly minimize the negative impact of moving to an SUF scheme.

ENG/ OB Links

31. ENG/ OB links are typically used by broadcasters to transmit on the spot and immediate news flashes from outside locations back to the station for broadcasting to the public. Within the frequency range used for providing ENG/ OB links, the following specific bands have been determined by OFTA as being congested and hence subject to SUF:

2055 – 2095 MHz
2200 – 2290 MHz

32. As ENG/ OB links are essentially the same as fixed links but being transportable, OFTA suggests that the SUF for ENG/ OB links be set at the same level as fixed links which are used on an exclusive basis, i.e. ($2,936 x 6 = $17,616) **$18,000** per MHz per annum.

33. Nevertheless, as 20 MHz of spectrum in the 2065 – 2085 MHz range has been assigned on a sharing basis in order to accommodate more broadcasters, and it is technically possible to share the same spectrum between two operators at a particular location, OFTA suggests that the SUF for use of frequency in the 2065 – 2085 MHz range, i.e. non-exclusive use of ENG/ OB spectrum be calculated as: ($17,616/ 2 = $8,808) **$9,000** per MHz per annum.

Question 4:	*Do you agree with the approach on setting the SUF for congested frequency bands for ENG/OB links mentioned in the above paragraphs?*

34. HKT agrees with the general approach adopted by OFTA in setting the SUF. However, OFTA should look into whether there is any scope for lower figures to be derived if a more aggressive LRAIC costing approach were to be adopted. Lower SUF levels would greatly minimize the negative impact of moving to an SUF scheme.

Selected Satellite Links

35. Satellite links are used to provide Fixed Satellite Services ("**FSS**") such as television broadcasting, very small aperture terminals and external telecommunications. FSS earth stations mostly operate in the following frequency bands in Hong Kong:

3400 – 4200 MHz (C-Band Downlink)
5850 – 6425 MHz (C-Band Uplink)
6425 – 7075 MHz (Satellite Uplink)

These bands are discussed individually in the following section.

C-Band Satellite Downlink (3400 – 4200 MHz Band)

36. A large number of satellite stations use this frequency band to receive satellite television signals. These include stations licensed under the Satellite Master Antenna Television ("**SMATV**") licence and Television Receive-Only ("**TVRO**") stations; the latter being licence-exempt under Section 8(4) of the Telecommunications Ordinance.

37. As this band is shared by both licensed (i.e. SMATV) and licence-exempt (i.e. TVRO) operators, there are practical difficulties in imposing SUF on both groups of users of the spectrum as OFTA does not maintain a record of the TVRO stations. It would not be fair to just impose SUF on the SMATV operators. On this basis, OFTA suggests that a "commons approach"[2] be adopted for spectrum in this band, in which case, no SUF will be imposed.

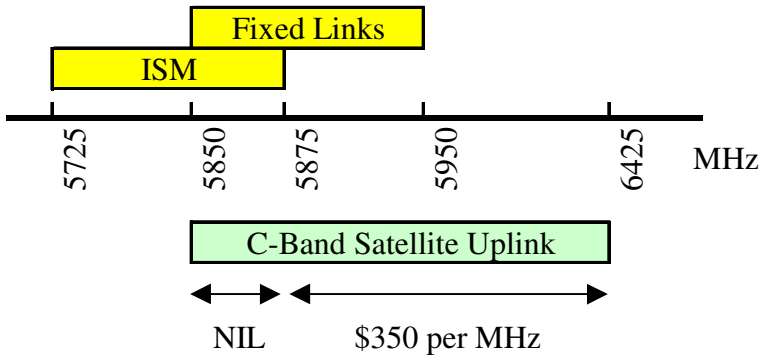
C-Band Satellite Uplink (5850 – 6425 MHz Band)

38. Part of the C-Band frequency range used for satellite uplink services overlaps with spectrum used for Industrial, Scientific and Medical ("**ISM**") applications (5725 – 5875 MHz). The ISM frequency band can be used by anyone on a licence-exempt basis under a commons approach. As radio services using the same frequency as the ISM band are required to accept any interference generated by the ISM equipment, and there is no restriction on the number of radio users that can access the ISM spectrum, OFTA considers it appropriate to use a commons approach for that part of the ISM spectrum that overlaps with the C-Band satellite uplink frequency. Accordingly, no SUF should be imposed on FSS providers for using the frequency range 5850 – 5875 MHz to operate satellite uplink services.

39. In May 2001, the Telecommunications Authority announced his decision to allocate the 5850 – 5950 MHz frequency band for shared use by both fixed links and C-Band satellite uplinks. Within this range, fixed links are not protected against transmissions from satellite uplinks and other fixed links. Further, OFTA considers that this frequency range can be reused many times and that it would it appropriate to adopt a sharing factor of 50. On this basis, OFTA proposes to levy an SUF of ($17,616/ 50 = $352) **$350** per MHz per annum for use of C-Band satellite uplink spectrum in the 5875 – 6425 MHz range.

40. A diagram illustrating the overlapping blocks of spectrum within the C-Band satellite uplink range and the proposed SUF is shown below:

[2] A "commons approach" refers to frequencies designated as a common resource which can be accessed by anyone subject to certain technical standards and established etiquette, and rely on users of the spectrum to come up with their own solutions to resolve potential interference problems.



Satellite Uplink (6425 – 7075 MHz Band)

41. Besides the C-Band, satellite uplinks are permitted to operate in the 6425 – 7075 MHz range. However, in Hong Kong, this band is also used by fixed links on a co-primary basis. Fixed links operating in this range are nevertheless protected against satellite transmissions (unlike the 5850 – 5950 MHz frequency band previously discussed).

42. Given that the spectrum in this frequency band is being used by satellite uplinks on a non-exclusive basis, OFTA considers it appropriate to apply an SUF of **$3,000** per MHz per annum, i.e. the same as that for fixed links.

Question 5:	*Do you agree with the approach on setting the SUF for congested frequency bands for satellite uplinks mentioned in the above paragraphs?*

43. HKT agrees with the approach adopted for the C-Band satellite downlink spectrum (3400 – 4200 MHz) whereby, in the interests of fairness and equality, no SUF will be imposed on the SMATV operators because TVRO operators, who are also using the same spectrum, are not subject to SUF. This principal should be universally applied to cases where different groups of operators are using spectrum to offer the same type of services, e.g. free-to-air television services.

44. Similarly, for that part of the C-Band satellite uplink spectrum (5850 – 6425 MHz) that overlaps with the radio frequency used for ISM applications (i.e. 5850 – 5875 MHz), HKT concurs that no SUF should be imposed.

45. For the remainder of the spectrum in the C-Band satellite uplink band (i.e. 5875 – 6425 MHz), as only the 5875 to 5950 MHz range overlaps with the frequency band shared with fixed links, logically speaking, the calculated SUF of $350 per MHz per annum should only apply to the overlapping portion of spectrum. The frequency band from 5950 – 6425 MHz is solely used for satellite uplink services and hence should be subject to the full amount of SUF at $18,000 per MHz per annum.

46. In addition, there appears to be an inconsistency in the calculation of the $350 SUF in that, under this band, it is assumed that the frequency can be shared by the fixed links 50 times whereas under the fixed links bands discussed in the previous section, it is assumed that the spectrum can only be shared by the fixed links 6 times. OFTA needs to clarify this point in order to avoid any confusion and misunderstanding.

47. For the C-Band satellite uplink spectrum (6425 – 7075 MHz), subject to HKT's previous comments regarding the sharing factor used in the calculation of the SUF involving fixed links, HKT agrees with the proposed SUF level of $3,000 per MHz per annum.

48. Lastly, as stated before, OFTA should look into whether there is any scope for lower figures to be derived if a more aggressive LRAIC costing approach were to be adopted. Lower SUF levels would greatly minimize the negative impact of moving to an SUF scheme.

IMPLEMENTATION ISSUES

49. In this section of the Consultation Paper, OFTA discusses issues concerning the manner in which the SUF will be levied.

SUF in Lump Sum or Annual Fee Payment

50. In the recent spectrum auctions, SUF has been paid by the successful bidder as one lump sum up front. A question has therefore been raised as to whether the SUF for administratively assigned spectrum should be paid on the same basis or whether it should be paid annually.

51. At present, administratively assigned spectrum is held by operators whose licences have been granted for one year or more than one year. In the Consultation Paper, OFTA expresses a preference for the SUF to be paid by the licensee on an annual basis regardless of the validity period of the licence.

Question 6:	*Do you agree that SUF should be imposed as annual payment regardless of the valid duration of the licence?*

52. In order to better control cash flow and facilitate the return of spectrum if, at any time, an operate decides that it no longer needs to use the spectrum, HKT agrees that it would be better to standardize the payment of SUF for administratively assigned spectrum to one year for all licensees regardless of the validity period of the licence. On this basis, spectrum which has been assigned via auction can continue to be distinguished from administratively assigned spectrum by being subject to a one-off payment for SUF rather than an annual payment.

SUF for Fixed Links Assigned to Mobile Carriers under WBLRS Licence

53. As previously mentioned, fixed links are currently operated under an FTNS/ FC/ UC licence or a WBLRS licence, with the corresponding licence fees and spectrum management fees being different. For instance, for a 7 GHz fixed link, WBLRS licensees pay $150 per MHz in fees as compared to $3,667 per MHz for holders of UC licences.

54. To be equitable, therefore, OFTA suggests in this Consultation Paper that, in future, fixed links can only be operated under a UC licence. Upon expiry of the existing WBLRS licences, operators wishing to make use of fixed links must obtain a UC licence or subsume the spectrum into their existing UC licence. The SUF payable for fixed links will thus be based on the amount for holders of UC licences as previously calculated.

Question 7:	*Do you agree that fixed links operated by mobile carriers should be assigned under UC licence (instead of WBLRS licence) and thus be charged with the relevant SUF accordingly?*

55. HKT agrees that OFTA's proposal results in a more equitable treatment for UC licensees and holders of the WBLRS licence regarding the payment of SUF for fixed links and hence should be implemented.

Transitional Arrangements

56. OFTA's intention is to introduce the SUF charging scheme at the same time for all users of administratively assigned spectrum regardless of when the validity period of their licence expires, otherwise operators holding fifteen or twenty year licences will have a financial advantage over those holders of annual licences.

57. To give spectrum holders an opportunity to evaluate their spectrum needs and return any unwanted frequency bands before the SUF charging scheme is introduced, OFTA intends to allow a grace period of two years. After the two years, OFTA proposes to adopt a three year phase-in arrangement whereby SUF will be charged for spectrum on the following basis:

(i) 30% of the SUF payable will be charged at the start of year 3;

(ii) 70% of the SUF payable will be charged at the start of year 4; and

(iii) 100% of the SUF payable will be charges at the start of year 5 and thereafter.

58. In addition, in order to provide a financial incentive to operators to return spectrum within the first two years, OFTA intends to offer a one-off grant amounting to 10% of the annual SUF applicable to the spectrum returned or the actual cost incurred in migrating to other means of providing the service, whichever is lower.

Question 8:	*Do you agree that SUF should be applied to all users of the designated congested frequency bands irrespective of the time when the licence of the user is due for renewal?*

59. HKT agrees that, in the interests of fairness, all operators should be subject to the SUF charging mechanism at the same time otherwise some operators may be given a financial advantage over the others.

Question 9:	*Do you agree with the transitional arrangements for implementing the SUF charging scheme (i.e. the grace period, the phase-in introduction of the SUF and the one-off grant arrangement) as proposed in paragraph 57 above?*

60. Assuming an SUF regime, HKT would, in principle, agree with a phase-in approach in order to allow time for operators to adjust to the new charging scheme. In fact, HKT supports the use of proper and adequate transition periods whenever new charges are being introduced or existing charges are being eliminated. The following issues do, however, need to be clarified before the scheme is introduced:

(a) On the basis that operators are permitted to return partial blocks of their assigned spectrum after the end of the second year, will there be any rules governing which specific parts of their spectrum blocks will be accepted by OFTA?

(b) For the one-off grant offered by OFTA to incentivise return of spectrum within the first two years, how will the grant be calculated if only a partial amount of spectrum is returned? Specifically, in such a case, how will the cost of migrating to other means of providing service be computed?

HKT considers that these matters need to be clearly explained by OFTA in order to enable operators to make proper business decisions regarding future use of the spectrum they are currently holding.

Periodic Review of SUF Charging Scheme

61. The cost estimates used in the calculation of the SUF can quickly become outdated if they are not revised in line with changes in technology. On this basis, after considering: the administrative costs; the amount of time needed to conduct a price review; the time period required to collect a useful series of data on changes in spectrum use; the volatility of spectrum demand; and the need to give licensees certainty regarding the level of SUF in planning spectrum use as well as making investment decisions, the Consultant has recommended that the SUF charging scheme be reviewed every five years.

Question 10: Do you agree that SUF charging scheme should be reviewed every five years?

62. OFTA must strike a balance between reviewing the SUF charging scheme too frequently (and hence making it difficult for operators to plan for use of the spectrum) and leaving long gaps between reviews (thereby rendering the costs seriously out-of-date). On this basis, HKT concurs that five years is an appropriate time frame between reviews.

63. In reviewing the charging scheme, OFTA should also allow for the possibility of withdrawing the SUF in the event that a frequency band is no longer considered congested.

CONCLUSION

64. Fundamentally, HKT sees no real reason why it should be necessary for OFTA to introduce an SUF for administratively assigned spectrum at this point in time. No such charge has been levied in the past; imposing an SUF will only serve to erode the already thin margins of operators (which in turn will lower service quality, customer care and investment levels). Further, any notion of a band being congested will disappear later on when spectrum is released via the digital dividend. In the meantime, via industry discussion and codes of practice, it should be possible to relieve any short term frequency band congestion without resorting to charging.

65. Nevertheless, should OFTA be minded to charge for use of spectrum assigned in this manner then it must be done on an equitable basis. Spectrum which is used to deliver the same type of services should be treated in the same way for SUF purposes. Transparency and fairness in all steps and decisions will be essential.

66. As this is a new charge to be imposed on existing holders of spectrum, the financial impact for some operators could be significant. On this basis, HKT concurs with OFTA's proposal to gradually phase in the introduction of the SUF over five years. This should allow sufficient time for operators to assess their spectrum requirements and return unneeded spectrum or plan for payment of the necessary SUF when the time comes.