



**Submission in Response to  
Second Consultation on Development of Mobile Television Services**

25 April 2008

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## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	3
INTRODUCTION .....	6
SPECTRUM AVAILABILITY .....	8
BAND III (174 MHz – 230 MHz).....	9
UHF BAND (470 MHz – 806 MHz).....	9
L BAND (1466 MHz – 1480 MHz) .....	12
S BAND (2635 MHz – 2660 MHz) .....	13
SPECTRUM ALLOCATION .....	14
SPECTRUM ASSIGNMENT .....	16
LICENSING ARRANGEMENTS .....	18
ACCESS TO HILLTOP TRANSMISSION SITES AND GEOGRAPHICAL COVERAGE FOR BROADCAST-TYPE MOBILE TELEVISION .....	21
SHARING OF HILLTOP SITES.....	21
GEOGRAPHICAL COVERAGE REQUIREMENTS.....	22
CONCLUSION.....	24

## EXECUTIVE SUMMARY

1. Mobile TV services via 3G mobile handsets are already being provided by the 3G mobile operators in Hong Kong today via streaming technology. Offered content includes music, news and sports. Unfortunately, the demand for such mobile TV services has not been significant.
2. As spectrum is a scarce public resource, the CEDB needs to carefully consider whether this is an appropriate time to release frequency bands for the provision of further mobile TV services. The timeframe for licensing mobile TV spectrum should be assessed with regards to demand, technology and handset availability. Other important factors include the revenue potential to the public purse and the TA's future spectrum release plans, particularly in relation to any forthcoming frequency auctions for other related wireless services such as BWA.
3. When the CEDB decides to proceed with the licensing for mobile TV services, however, then the maximum amount of spectrum allocated for such services should be released in one go so as to make it easier for operators to decide whether they wish to participate in the spectrum auction, and to allow market forces to set a suitable price for the frequency bands.
4. The various questions raised by the CEDB in the Consultation Paper actually point to a critical issue not directly and fully presented. This issue is one of convergence and competition: both the convergence and competition between the free-to-air, pay TV, mobile TV and non-mobile TV service providers (in whatever form). Only by recognizing this issue can policy be crafted to be fair, reasonable, forward-looking, non-discriminatory and at the same time maximize choice and benefits to users.
5. On this basis, PCCW considers the following approach to be appropriate in respect of the matters raised in the Consultation Paper:
6. *Spectrum Availability.* Out of the four frequency bands suggested, spectrum in the UHF Band is considered the most suitable for offering mobile TV services. Both multiplexes available in the UHF band must therefore be released at the same time in order to avoid artificially inflating the auction price for the spectrum. In addition, the CEDB

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should take this opportunity to closely review the usage of spectrum in this band by ATV and TVB for DTT broadcasting in order to assess whether any further amounts of spectrum can be released for mobile TV services.

7. *Spectrum Allocation.* PCCW supports a technology and service-neutral approach to the allocation of spectrum. Accordingly, it does not support the CEDB's proposal to require at least 50% of the transmission capacity of the spectrum to be used to carry mobile TV content. Such an approach would be more akin to the "command-and-control" method of spectrum allocation which the CEDB is clearly keen to get away from. The market should be permitted to decide on the type of technology to be deployed and the use of the spectrum, whether this be mobile TV, DTT, DAB or any other type of service.

8. *Spectrum Assignment.* In line with the CEDB's Spectrum Policy Framework, PCCW concurs that an auction process should be adopted to determine the party to whom the spectrum should be assigned and the level of the SUF payable. No roll out obligations should be imposed since payment of the SUF and annual licence fees should act as sufficient incentive for the operator to roll out service as soon as possible. There is no indication that any market failure or competition law issues would arise if roll out obligations were not imposed.

9. *Licensing Arrangements.* PCCW considers it equitable for television content to be regulated (or not) on the same basis regardless of the receiving device, whether the television programme is broadcast to viewers in fixed premises or on the move. If a "self-regulatory approach" is adopted then it would be sufficient for mobile TV content to be regulated by general laws such as the Control of Obscene and Indecent Articles Ordinance and the Prevention of Child Pornography Ordinance. There is no need to increase the burden on the industry by introducing additional codes of practice. Obviously, if mobile TV content is only subject to general laws then the same programmes delivered to traditional television sets in fixed premises cannot be subject to more stringent regulation. Accordingly, it may be appropriate to review and update the provisions in the Broadcasting Ordinance to ensure consistency of treatment.

10. *Access to Hilltop Transmission Sites and Geographical Coverage for Broadcast-Type Mobile Television.* For environmental reasons, it is

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critical that the transmission sites of the existing free-to-air broadcasters, ATV and TVB, can be accessed by future operators of mobile TV services to enable them to provide service without erecting new transmission stations. In addition, given that mobile TV services are only likely to be provided as an “add-on” to existing mobile voice services, and are not intended to replace the traditional television service delivered to the home, it would not be appropriate to impose the same near 100% geographical coverage requirement on the mobile TV service operators. Indeed, geographical coverage and content should be market-driven and regulations or approaches which favour the free-to-air broadcasters should be reviewed.

11. In conclusion, therefore, given the current market for mobile TV services and the limited amount of spectrum available, the CEDB should carefully consider:

- the timing for the introduction of mobile TV services;
- which frequency bands to allocate for these services;
- how much spectrum to auction; and
- how to regulate mobile TV services

so as to ensure that when spectrum is released for such services they are given ample scope for development in Hong Kong.

12. The current market circumstances and the newness of mobile TV must be fully considered. Stringent regulation on a command-and-control basis is unlikely to produce the best result for the Hong Kong public or the telecommunications industry.

13. PCCW does not see, on balance, a need to introduce additional spectrum at this time for the provision of mobile TV. If spectrum is to be released, however, then both available UHF bands should be auctioned and their use driven by the market, subject to light-handed regulation.

## INTRODUCTION

14. PCCW-HKT Telephone Limited (“PCCW”) welcomes the opportunity to provide its comments on the *Second Consultation Paper on Development of Mobile Television Services* (“**Consultation Paper**”) issued by the Commerce and Economic Development Bureau (“CEDB”) in January 2008.

15. This Consultation Paper puts forward the CEDB’s proposals for the development of mobile television (“**mobile TV**”) services after considering the industry’s submissions to its previous consultation paper on *Digital Broadcasting: Mobile Television and Related Issues* issued in January 2007 (“**First Consultation Paper**”).

16. At the outset, whilst PCCW supports the development of new and innovative services, it is concerned that the CEDB has not properly considered the timing for the release of spectrum for broadcast-type mobile TV services. The critical questions that need to be addressed by the CEDB are:

- Whether there is demand for mobile TV that is not being met and if so, how much demand;
- How much spectrum is needed to support this demand;
- Whether the present providers of mobile TV services are meeting market requirements;
- What is the state of current mobile TV technologies, including handset availability; and
- Whether the Hong Kong market can accommodate any more mobile TV service providers.

17. In Hong Kong today, the 3G mobile operators are already offering a full range of TV services using streaming technology but, as yet, there is still no overwhelming demand for, or substantial revenues generated from, such services. Even if additional spectrum were to be released for new mobile TV services, consumers may not experience any significant improvement in quality or programme diversity. Thus, it could be difficult for potential mobile TV service providers to build a viable business case, invest and innovate, or provide any *real* benefits to consumers.

18. In addition, the impending release of spectrum for Broadband Wireless Access services (which could also be used to deliver TV programmes to wireless devices) may confuse the market and simply serve to complicate the business decisions of potential mobile TV service providers.

19. When the CEDB eventually considers it appropriate to allocate spectrum for mobile TV services, however, then it should not be done in small or uncertain steps. The maximum amount of spectrum available for such services should be released otherwise any potential development of the mobile TV market could be constrained and the price paid for the spectrum could end up being unreasonably high.

20. In the rest of this submission, PCCW outlines its response to the specific questions raised in the Consultation Paper.

## SPECTRUM AVAILABILITY

21. In the First Consultation Paper, the CEDB put forward the following frequency bands for the provision of mobile TV, Digital Terrestrial Television (“**DTT**”) broadcasting and Digital Audio Broadcasting (“**DAB**”) services:

- Band III (174 MHz – 230 MHz);
- UHF Band (470 MHz – 806 MHz);
- L Band (1466 MHz – 1480 MHz); and
- S Band (2635 MHz – 2660 MHz).

22. The following table shows the number of respondents to the First Consultation Paper who considered each frequency band suitable for the provision of mobile TV services:

Frequency Band	Number of Respondents	%
Band III	2	14
UHF Band	9	64
L Band	2	14
S Band	1	8
<b>Total</b>	<b>14</b>	<b>100</b>

23. After considering the submissions to the First Consultation Paper, the CEDB has proposed the following frequency bands to be made available for the development of mobile TV services, which is the primary set of services being discussed in this consultation paper:

- *Band III.* Out of the four multiplexes currently identified in Band III for launching mobile TV services, two multiplexes, i.e. (217.872 MHz – 219.408 MHz) and 1.5 MHz from either (216.160 MHz – 217.696 MHz) or (219.584 MHz – 222.832 MHz) are to be offered.
- *UHF Band.* Out of the two multiplexes in the UHF Band identified for mobile TV services, one multiplex, i.e. (678 MHz – 686 MHz), also known as UHF TV Channel No. 47, is to be offered.

Multiplexes in L Band and S Band are to be withheld subject to further public views, the market situation and technological development.



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24. In the Consultation Paper, the CEDB asks:

*We welcome your views on the allocation of one multiplex in UHF Band and two multiplexes in Band III for the development of mobile TV services.*

*We also welcome your views on the release of frequency spectrum in L Band and S Band for the purpose.*

### **Band III (174 MHz – 230 MHz)**

25. This is not a popular band for mobile TV in view of the responses to the previous round of consultation. Only two out of the fourteen respondents indicated an interest in using this band. This may be attributed to the fact that each 1.5 MHz multiplex is only able to provide three broadcast-type mobile TV channels. The spectrum could, nevertheless, be used for DAB. In any case, out of the four multiplexes currently reserved, only one is immediately available for use. The other three (including the 1.5 MHz which the CEDB proposes to release for mobile TV services) are required to be vacated by existing operators before they can be returned for reuse.

26. On this basis, PCCW would suggest that the CEDB not consider releasing spectrum in this band until all multiplexes are available in order to ensure that the price for the spectrum is not artificially inflated. If the CEDB were to release two of the multiplexes immediately, they could only realistically be used for DAB services (which may not be the most efficient use for the spectrum) so this may not be the best time to release the frequency bands in Band III.

### **UHF Band (470 MHz – 806 MHz)**

27. Based on the number of channels that can be supported, the data rate and the extent of indoor coverage, DVB-H and MediaFLO are, for all intents and purposes, the only technologies that would be suitable for mobile TV services in Hong Kong. Both of these technologies can be deployed in the UHF band.

28. As indicated in the Consultation Paper, UHF spectrum has superiority over other frequency bands with respect to optimum utilization of the transmission network and capacity as well as the

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propagating characteristics of signal transmissions. Understandably, therefore, more and more countries around the world are intending to use the UHF band for mobile TV services. Accordingly, this band is considered the best frequency range for mobile TV, and this is fully reflected by the number of respondents to the First Consultation Paper who support the use of this band for mobile TV services, i.e. nine out of the fourteen respondents, which is the majority.

29. Use of the UHF band for mobile TV is also consistent with the view expressed by the Media Development Authority (“MDA”) of Singapore in its consultation paper on *Policy and Regulatory Framework for Mobile Broadcasting Services in Singapore* (November 2007) and that expressed by the National Communications Commission (“NCC”) 國家通訊傳播委員會 in Taiwan in its consultation paper on *Mobile TV Licensing Policy 開放行動電視服務業務執照* (February 2008). Clearly, therefore, there is strong support from other regulators in the region to adopt the UHF band for mobile TV services, i.e. the UHF band may become the global standard for mobile TV services.

30. Mobile TV services of sorts are already being provided in Hong Kong via 3G mobile streaming and 3G mobile broadcast. Such services, however, only provide a limited number of channels. In order to move beyond the current 3G TV service offerings to a subscription based mobile TV service using broadcast technology, therefore, users must have access to a larger number of TV channels. The amount of spectrum proposed to be released in the UHF band (i.e. one multiplex of 8 MHz) is not sufficient to accommodate a large number of channels (especially if High Definition TV programmes are to be broadcast) and to successfully launch mobile TV services in Hong Kong. Indeed, in its report on Mobile TV in Asia issued by the Cable & Satellite Broadcasting Association of Asia (CASBAA) in January 2008, it stated that:

*Limited spectrum availability is likely to make it difficult for more than one operator to be able to provide a mobile broadcasting solution in the Hong Kong market.*

31. Instead of releasing only one of the multiplexes for mobile TV use, therefore, the CEDB should make available both multiplexes in the UHF band at the same time in order to ensure that sufficient spectrum is provided for mobile TV services, and that the auction price for the spectrum is not artificially inflated as a result of part of the spectrum

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being withheld. In this regard, it is interesting to note that the 2<sup>nd</sup> White Paper issued by the Mobile TV Joint UMTS Forum/ GSMA Work Group on *Sustainable Economics of Mobile TV Services* (January 2008) recommended that a minimum of 16 MHz be available for developing a successful mobile TV market. This approach may well be adopted in Taiwan where, in the consultation paper issued by the NCC, it proposes to release a total of 18 MHz (3 x 6 MHz) in the UHF band for mobile TV services.

32. In addition, the CEDB should closely review Asia Television Limited (“ATV”) and Television Broadcasts Limited’s (“TVB’s”) use of their allocated UHF spectrum to ensure that it is being efficiently deployed for DTT broadcasting, otherwise any excess amounts should be made available to the market for mobile TV or other services. Failing to do so would simply constrain the number of channels available, hinder the development of mobile TV or other services in Hong Kong and render investment in digital broadcasting an unnecessarily expensive proposition. In this regard, the CEDB should learn from the MDA in Singapore who has proposed releasing up to two 8 MHz multiplexes in the UHF band for mobile TV services and, in addition, making available spare capacity in the UHF band currently taken up by a mobile TV operator, TVMobile.

33. PCCW is concerned that, in a converging telecommunications and broadcasting market, ATV and TVB are not favoured in any way. This includes the current process by which they acquire spectrum outside of an open and transparent auction process. With respect, no more spectrum should be allocated to ATV and TVB should they request additional spectrum for any purpose, including to extend the geographical coverage of their DTT broadcasting. NowTV’s network and the networks of other pay TV operators already reach over 95% of households and can technically deliver a broad range of content options to views including the free-to-air TV programmes in digital format today without the use of any spectrum resources. In this manner, more efficient use could be made of the limited frequency in the UHF band without discrimination issues arising.

34. If mobile TV services are to be truly promoted, it is important to release all available spectrum in the UHF band as soon as possible. No competitor in a converged market should obtain an undue advantage based on old market distinctions. Further, no competitor should be able to dictate the timing of spectrum being made available to its competitors.

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On this basis, there is no longer any need to reserve the remaining multiplex for use by ATV or TVB. This piece of spectrum can be released onto the open market for providing mobile TV services.

35. On the other hand, if only one of the multiplexes is released for mobile TV services, and no indication is given as to when the second multiplex will be released, this will lead to uncertainty and make it difficult for operators to decide how much to bid for the multiplex that is initially made available for mobile TV services.

36. Accordingly, instead of waiting until 2012 to assess whether it is appropriate to effect “analogue switch-off”<sup>1</sup>, the CEDB should review progress on the DTT coverage of ATV and TVB well before this date, so that it can determine whether DTT coverage by ATV and TVB remains an issue in a converged and market-driven environment, and whether those geographical areas not yet covered by the free-to-air broadcasters can be reached via the pay TV operators, etc. For any number of reasons, it may be that there is no longer any need to allocate further spectrum to ATV and TVB for DTT purposes. On this basis, analogue switch-off can be effected in advance of 2012 so that the previously occupied frequency bands can now be released for use. Taking this step would ensure the most efficient use of scarce spectrum resources and provide much needed certainty to the industry as to the timing of the availability of future pieces of spectrum.

### **L Band (1466 MHz – 1480 MHz)**

37. As indicated in the Consultation Paper, the L band is not yet commonly used worldwide for the development of major electronic communications services. In particular, for mobile TV, although this spectrum band may have sufficient capacity, very few handsets operate in this frequency band. Furthermore, whilst only two out of the fourteen respondents thought it appropriate to use the L band for mobile TV services, not even one indicated any interest in bidding for the spectrum in this band.

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<sup>1</sup> In the Statement issued by the CEDB on 9 July 2004 regarding *The Implementation Framework for Digital Terrestrial Television Broadcasting*, the CEDB stated that it would aim to switch off analogue broadcasting in five years after the commencement of simulcast (2007).

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38. PCCW would therefore suggest that the CEDB withhold this band until further market studies had been completed and sufficient interest is shown in this band from the industry.

**S Band (2635 MHz – 2660 MHz)**

39. Satellite mobile TV could be offered in this band. The Chinese mobile TV standard, China Multimedia Mobile Broadcasting (CMMB), is earmarked for use in this frequency, but it is still in the development stage so it would too early to adopt for mobile TV services in Hong Kong. In addition, S Band has been allocated as the expansion band for 3G mobile services in Hong Kong in accordance with the recommendations of the International Telecommunication Union (ITU), and part of this band will also be used for Broadband Wireless Access (BWA) services (2500 MHz to 2690 MHz). There are therefore expected to be considerable operational issues arising from the control of interference between all these services if this band is also to be used for mobile TV.

40. On this basis, PCCW considers it impractical to release this band for mobile TV services. This approach is also consistent with the proposals put forward by the NCC in Taiwan in its consultation paper not to license S Band spectrum for mobile TV services at present.

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## SPECTRUM ALLOCATION

41. In response to the First Consultation Paper, the industry overwhelmingly supported the CEDB's adoption of a technology-neutral approach to the allocation of spectrum. That is, unless there are overriding policy reasons, the CEDB will not dictate the particular technology that needs to be used by the operators to provide their mobile TV, DTT or DAB services.

42. On the question of what services are permitted to be offered using the spectrum, however, the CEDB puts forward the following alternatives:

- A “service-neutral” approach, whereby the spectrum owner may freely decide what service to provide using the frequency; or
- A “conventional” approach, whereby specific frequency bands will be earmarked for offering mobile TV, DTT and DAB services; or
- A “pro-mobile TV” approach, whereby the spectrum will be principally allocated for mobile TV services, but DAB and datacasting services would be permitted to be offered as ancillary services. In this regard, the CEDB suggests that at least 50% of the transmission capacity be used to provide mobile TV services.

43. In the Consultation Paper, the CEDB asks:

*We welcome your views on whether the pro-mobile TV approach should be adopted, whereby at least 50% of the transmission capacity should be used to carry mobile TV content.*

44. PCCW considers that a service-neutral approach should generally be adopted. The market should decide to what use the spectrum would best be put, whether this be mobile TV, DTT, DAB or any other type of service. This is because a market-led, technology and service-neutral approach will always lead to the most economically efficient use of scarce spectrum resources, since the use will be driven by market demand for particular services and the cost and financial benefits of using spectrum to deliver those services. Adopting this approach would also pave the way for spectrum liberalization in the future, which would greatly benefit the Hong Kong telecommunications industry by providing

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greater flexibility in the manner in which scarce spectrum resources can be used.

45. Leaving the market to decide which services to offer also removes the need for the CEDB to make arbitrary “command-and-control” decisions regarding the amount of spectrum to be allocated for each of the three services in question, i.e. mobile TV, DTT and DAB, and risk getting it wrong. It is also consistent with global trends that a service neutral approach be adopted.

46. On this basis, the CEDB’s proposal to require at least 50% of the transmission capacity to be used for mobile TV is unnecessary. The CEDB claims that this would help drive the development of mobile TV services and promote service variety. But, if there is no (or limited) market demand for mobile TV, this approach would be flawed. The CEDB attempts to address this issue by granting the spectrum holder some flexibility, suggesting that compliance with the 50% requirement will not be reviewed by OFTA until five years after service launch. If the CEDB’s underlying intention is to allow the spectrum holder greater scope in the use of the frequency band, however, then this could clearly be better achieved by imposing no requirements whatsoever and letting the market ultimately drive the nature of the services to be offered.

47. Letting the market decide must be better than the CEDB making its own estimated or educated guess as to the demand for new services and technologies. It also avoids the slippery slope of non-compliance issues, waiver pleas, etc.

48. In fact, if there is a genuine demand for mobile TV and market forces encourage operators to use the spectrum to offer mobile TV services, then 50% or even more of the transmission capacity will naturally be used to provide such services without the CEDB arbitrarily imposing such a requirement.



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## SPECTRUM ASSIGNMENT

49. The CEDB intends to adopt the principles outlined in its Radio Spectrum Policy Framework (“**Framework**”) released in April 2007 in assigning the spectrum. Under the Framework:

- A market-based approach will be used to award spectrum if the Telecommunications Authority (“**TA**”) considers there are likely to be competing demands for non-Government use of the frequency bands and there are no overriding policy reasons to intervene in the process; and
- Spectrum holders will be required to pay Spectrum Utilization Fee (“**SUF**”) for use of the frequency.

50. In the Consultation Paper, the CEDB asks:

*We welcome your views on the adoption of market-based approach for the development of mobile TV services and the assignment of spectrum and the levy of Spectrum Utilisation Fee through auction.*

51. In accordance with the Framework, auctions will be used to determine the party to whom the spectrum should be awarded as well as the level of the SUF. PCCW concurs with this approach. Radio frequency is a scarce resource so it is only appropriate to levy a charge for the use of the spectrum. An auction process ensures that the spectrum is awarded to the operator who values it most. The inclusion of a vetting step in the qualification stage of the auction process would also ensure that bidders are financially capable of rolling out service if they are awarded the spectrum.

52. On this basis, it is difficult to accept that ATV and TVB have been granted additional spectrum to launch their own high-definition broadcasting services (which compete with mobile and pay TV services) without going through a proper auction process or being subject to the payment of SUF. This is against the principles outlined in the Framework and is unfair to all other operators interested in using the spectrum. As markets converge, such discrimination substantially distorts markets and competition and hence should be stopped.



53. PCCW also sees no need to include roll out obligations for mobile TV services. Doing so will penalize operators who wait for the right market opportunity before offering service. If spectrum holders are forced to roll out mobile TV services prematurely, as we have seen with 3G mobile services, this could lead to wasted investment. In any case, the payment of hefty SUF and annual licence fees should act as sufficient financial incentive for operators to roll out their service as soon as demand, technology and other factors warrant.

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## LICENSING ARRANGEMENTS

54. At present, the physical *transmission* of television programmes is licensed under the Telecommunications Ordinance via the Fixed Carrier or Mobile Carrier Licence. In the future, the TA's intention is to replace these two licences with a Unified Carrier Licence.

55. The *programmes* that are broadcast under the television service, on the other hand, are generally regulated under the Broadcasting Ordinance (“BO”). In the case of mobile TV programmes, however, these currently fall outside the BO because mobile TV is delivered to customers on the move rather than audiences in “specified” (i.e. fixed) premises<sup>2</sup>.

56. On this basis, the CEDB puts forward the following two alternative approaches to regulate mobile TV programmes:

- *Self-regulatory approach.* Under this approach, mobile TV content, whether offered using streaming technology over the existing 2.5G/3G mobile networks or broadcast using the spectrum bands proposed in this Consultation Paper, will be regulated according to general laws only, i.e. the Control of Obscene and Indecent Articles Ordinance and the Prevention of Child Pornography Ordinance. The provisions of the BO will not apply. In addition, mobile TV operators would be expected to draw up, and voluntarily comply with, an industry code of practice containing provisions to further safeguard public morals and protect children.
- *Licensing mobile TV under the BO.* This approach would entail the BO being amended so that a new category of television services is created for programmes delivered to customers who are on the move. In this way, mobile TV content would be regulated in the same way as traditional TV programmes in existence today. Further, codes of practice would be developed by the Broadcasting Authority (“BA”) in consultation with the industry and the public so that complaints concerning mobile TV content could be dealt with by the BA.

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<sup>2</sup> Under the BO, a free-of-charge domestic television programme service is only licensable if it is delivered to an audience of over 5,000 “specified premises”, i.e. residential premises or hotel rooms.

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57. In the Consultation Paper, the CEDB asks:

*We welcome your views on the above two light-handed regulatory approaches, and your suggestions on which approach should be adopted for development of mobile TV.*

58. PCCW supports the “self-regulatory approach” as it is appropriate for a new service and consistent with the Government’s general approach to regulation.

59. In any case, whichever approach is adopted, consistency is key. Whilst there are differences today between mobile and non-mobile TV services, these differences will no doubt decrease over time. Thus, it does not seem logical or sustainable going forward to make a distinction between content which is available to a recipient at a fixed location and content which is available to the recipient whilst on the move. It is generally the same content regardless of the receiving device and hence it should be regulated (or not) on the same basis.

60. If the CEDB opts for the “self-regulatory approach”, then mobile TV content should be lightly regulated and only subject to general laws such as the Control of Obscene and Indecent Articles Ordinance and the Prevention of Child Pornography Ordinance, but not the BO. There should be, absent a clear showing to the contrary, no further need to introduce additional regulation via industry codes of practice, even though compliance would be voluntary. Adherence to the general laws should provide consumers with sufficient protection. Adding this additional layer of requirements would simply detract from the light-handed regulatory approach which the CEDB is attempting to achieve. It would be an odd result to regulate mobile TV more than TV delivered via the Internet.

61. Adopting the “self-regulatory approach” for mobile TV content would nevertheless, in the interests of fairness and the maintenance of a level playing field, suggest that existing TV content delivered to fixed premises should be subject to the same treatment. This would require changes to be made to the BO and/ or codes of practice to relieve existing TV content from compliance with certain conditions.

62. As a bare minimum, PCCW considers that the present set of regulations need to be amended to at least ensure that all television content delivered to fixed premises (either via terrestrial broadcasting or cable or the Internet) is regulated in the same manner.

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## **ACCESS TO HILLTOP TRANSMISSION SITES AND GEOGRAPHICAL COVERAGE FOR BROADCAST-TYPE MOBILE TELEVISION**

63. Unless mobile TV operators erect their own transmission facilities, they will require access to the existing facilities currently used by broadcasting and telecommunications operators in order to provide service. Respondents to the First Consultation Paper expressed concerns over not being able to make use of the present hilltop transmission sites.

64. In addition, as the free-to-air television broadcasters currently make use of these transmission sites to provide near 100% coverage, the CEDB is considering imposing the same geographical coverage obligation on the mobile TV operators on the basis that they are able to access the same hilltop sites as those used by the existing television broadcasters.

65. The CEDB justifies this by arguing that free-to-air broadcasting is a major source of information, education and entertainment for the general public and hence needs to be subject to very extensive geographical coverage requirements. The public has also built up an expectation for the more “innovative broadcasting and telecommunications services”, e.g. mobile TV to have near universal coverage. Accordingly, the CEDB intends to impose milestones on the roll out of mobile TV services.

66. In the Consultation Paper, the CEDB asks:

*We welcome your views on the requirement that mobile TV services should provide the same geographical coverage as free-to-air broadcasters.*

### **Sharing of Hilltop Sites**

67. Hilltop transmission sites are scarce resources. For environmental reasons, the installation of an excessive number of transmission stations should not be encouraged. It is therefore essential that the existing hilltop transmission sites used by ATV and TVB are shared with all interested mobile TV operators. In this regard, PCCW notes that OFTA has already issued a guideline on the use of hilltop radio sites to ensure that such

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facilities are being used efficiently and effectively to provide telecommunications and other public services<sup>3</sup>.

68. PCCW concurs that arrangements for sharing a site should be negotiated with the site owner on a commercial basis. Only if both parties are unable to reach agreement should the TA be required to intervene.

### **Geographical Coverage Requirements**

69. It would not be appropriate to impose any geographical coverage obligations on the prospective mobile TV service providers. The need to pay hefty SUF and annual licence fees should already provide sufficient encouragement to the mobile TV service provider to lay a network to capture as many subscribers as possible.

70. Requiring a mobile TV service provider to meet the same universal coverage requirements as the free-to-air broadcasters would not make sense, and would impose an excessive obligation on the mobile TV operator because the free-to-air broadcasters usually transmit their TV signals to antennae located on the rooftop of fixed premises. The signals are then relayed to the apartments within the building via internal systems. Mobile TV signals, on the other hand, will be transmitted directly to devices which are being held by viewers on the move at street level or inside buildings where the signal is more difficult to pick up. It would therefore be unreasonable to impose the same standards of reception and universal coverage requirements on mobile TV operators.

71. Given that mobile TV services are likely to be sold as a value-added service (i.e. as an add-on to a mobile phone service) rather than as direct substitute for existing traditional TV services delivered to the home, if any geographical coverage requirements are to be imposed for mobile TV services, then perhaps they should be more closely aligned with those specified for mobile voice services, such as the CDMA 2000 mobile service, rather than those for the free-to-air TV broadcasters. It should be noted that any coverage requirements expressed in terms of “population coverage” would not make sense for mobile TV services since customers will not be confined to fixed locations when using the service.

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<sup>3</sup> Refer to *Use of Hilltop Radio Site Resources* issued by OFTA in April 2005.

72. In any case, mobile TV is still a relatively new and untested service in terms of technology, demand and business plans. Regulation of such services should therefore be kept as light-handed as possible. Imposing coverage requirements which parallel those of the existing broadcasters would be unwarranted and unnecessary.

## CONCLUSION

73. Given the current market for mobile TV services and the limited amount of spectrum available, the CEDB should carefully consider:

- the timing for the introduction of mobile TV services;
- which frequency bands to allocate for these services;
- how much spectrum to auction; and
- how to regulate mobile TV services

so as to ensure that when spectrum is released for such services they are given ample scope for development in Hong Kong.

74. The current market circumstances and the newness of mobile TV must be fully considered. Stringent regulation on a command-and-control basis is unlikely to produce the best result for the Hong Kong public or the telecommunications industry.

75. PCCW does not see, on balance, a need to introduce additional spectrum at this time for the provision of mobile TV. If spectrum is to be released, however, then both available UHF bands should be auctioned and their use driven by the market, subject to light-handed regulation.

**Submitted by**  
**PCCW-HKT Telephone Limited**