



**Response to Consultation Paper
Digital Broadcasting: Mobile Television and Related Issues**

11 May, 2007

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	3
INTRODUCTION.....	6
POLICY FRAMEWORK FOR DIGITAL TERRESTRIAL TELEVISION (“DTT”).....	6
DIGITAL BROADCASTING: AN OVERVIEW.....	10
SPECTRUM AVAILABILITY	13
DTT.....	14
DAB	14
MOBILE TV	14
SPECTRUM ALLOCATION	18
SPECTRUM ASSIGNMENT	21
LICENSING ARRANGEMENT	23
CONCLUSION.....	26

EXECUTIVE SUMMARY

1. Mobile television (“**mobile TV**”) services have already been launched around the world and are being trialed in Hong Kong. Although a mobile TV service of sorts is already available in Hong Kong via 3G mobile services, the service is presently characterized by a limited number of viewing channels and less than perfect picture quality.

2. The mobile TV service expected to be offered in the future will be of a much higher quality and delivered to, not just mobile phones, but an array of portable mobile devices. In anticipation of the launch of such services, the Commerce, Industry and Technology Bureau (“**CITB**”) has initiated this consultation to discuss the areas noted below in relation to mobile TV services:

- (i) Technologies supporting mobile TV services and risks/opportunities for development of mobile TV services;
- (ii) Spectrum ranges available for mobile TV services;
- (iii) Approach to be adopted in allocating spectrum for digital broadcasting services, including mobile TV services;
- (iv) Determining how to assign the spectrum and conditions attached to the award of spectrum; and
- (v) Content licensing arrangements for mobile TV services.

PCCW-HKT Telephone Limited (“**PCCW**”) compliments the work to date on this subject by the CITB.

In respect of the specific questions raised under these areas, PCCW considers the following:

- The Government should adopt a technology neutral and market-led approach. It should not specify any particular technology for the provision of mobile TV services.
 - The development of mobile TV services in Hong Kong is highly dependent on: the availability of devices to support mobile TV services; the amount of spectrum made available to deliver a sufficient number of channels to the viewer; and consumer demand for mobile TV services at various prices. The CITB and the Telecommunications Authority therefore have an important role to
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play in ensuring that there is an adequate supply of spectrum available for the provision of mobile TV services.

- DVB-H and MediaFLO are, for all practical purposes, the only technologies that would be suitable for mobile TV services in Hong Kong, based on PCCW's assessment of the available technologies and spectrum options. Both of these technologies operate in the UHF spectrum band. Accordingly, sufficient spectrum within the UHF Band must be made available for mobile TV services even though it is at present partly occupied by Digital Terrestrial Television (“**DTT**”) services.
- A service neutral approach should be adopted for the allocation of spectrum. This would allow operators to make their own decisions as to which services (mobile TV, DTT or Digital Audio Broadcasting) the spectrum will be used for.
- Auctions should be used to determine the party to whom the spectrum should be awarded and also the level of the Spectrum Utilization Fee. Radio frequency is a scarce public resource and 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 most values it. There is no need for roll out obligations.
- Whilst content broadcast to fixed television sets at home is regulated under the Broadcasting Ordinance (“**BO**”), the same content delivered via a mobile TV service does not, according to the specific provisions of the BO, fall within the provisions of the BO. This anomaly may be addressed if desired when the BO is next reviewed. In any case, the *Control of Obscene and Indecent Articles Ordinance* should be sufficient at present to ensure that content broadcast by mobile TV service providers does meet minimum statutory standards of decency.

3. Given the competing demands on spectrum for DTT and mobile TV services within the UHF Band, PCCW also considers it important for the CITB to revisit the spectrum allocations it previously made under *The Implementation Framework for Digital Terrestrial Television Broadcasting* back in 2004 (“**DTT Implementation Statement**”), where it automatically granted the two incumbent Free-To-Air television broadcasters spectrum to provide new high-definition broadcasting services.

4. The provisions contained in the DTT Implementation Statement should now be updated to reflect the demand for spectrum arising from new mobile television services. This is needed in order to ensure fair play and a level playing field in the market for the provision of digital broadcasting services, which would produce a market driven result.

INTRODUCTION

5. In this submission, PCCW-HKT Telephone Limited (“**PCCW**”) comments on the matters raised by the Commerce, Industry and Technology Bureau (“**CITB**”) in its consultation paper on *Digital Broadcasting: Mobile Television and Related Issues* issued on 26 January 2007 (“**Consultation Paper**”).

6. The Consultation Paper recognizes that the roll out of mobile television (“**mobile TV**”) services is gaining momentum around the world and that such services have already been commercially launched in several countries. Indeed, some local operators are presently conducting trials on mobile TV services in Hong Kong.

7. In order to facilitate the launch of mobile TV services in Hong Kong, the CITB considers there is a need to deal with the regulation of such services and, accordingly, its Consultation Paper focuses on four main areas pertaining to mobile TV services, namely:

- (i) spectrum availability;
- (ii) spectrum allocation;
- (iii) spectrum assignment; and
- (iv) licensing arrangements.

8. Before addressing the specific matters raised in the Consultation Paper, however, PCCW would like to deal with certain spectrum related issues pertaining to the consultation.

Policy Framework for Digital Terrestrial Television (“DTT”)

9. In the Consultation Paper, the CITB recognizes the need to revisit, as part of the consultation on mobile TV, certain regulatory arrangements relating to the implementation of commercial DTT and Digital Audio Broadcasting (“**DAB**”) because mobile TV services may compete with DTT and DAB services for radio spectrum.

10. PCCW agrees that it is appropriate to review these arrangements, particularly those in relation to the frequency allocations previously made by the CITB for DTT, in the light of competing demands for scarce spectrum resources brought about by the introduction of mobile TV and

other services. Circumstances have changed and hence this review is appropriate.

11. In the Statement of the Secretary for Commerce, Industry and Technology on *The Implementation Framework for Digital Terrestrial Television Broadcasting* issued on 9 July 2004 (“**DTT Implementation Statement**”), the CITB determined that:

- Out of a total of five multiplexes available in Hong Kong, Asia Television Limited (“**ATV**”) and Television Broadcasts Limited (“**TVB**”) are to share the one based on the Multiple Frequency Network (“**MFN**”) configuration for broadcasting their four existing programme channels in digital format alongside analogue broadcasting;
- ATV and TVB to take up one additional multiplex each based on the Single Frequency Network (“**SFN**”) configuration for new high-definition broadcasting services; and
- The remaining two SFN multiplexes to be assigned at a later stage after ATV and TVB have confirmed the technical feasibility of the SFN configuration.

12. In view of the increasing scarcity of spectrum resources and the competing demands for spectrum, the provisions outlined by the CITB in its DTT Implementation Statement back in July 2004 are now clearly no longer in the public interest.

13. Firstly, there seems no overarching reason in a market driven policy approach to automatically allocate ATV and TVB additional spectrum (one SFN multiplex each)¹ from the depleting pool of spectrum resources to provide new high-definition broadcasting services when no other service providers have been granted the same privilege. This goes beyond the requirement to migrate their existing analogue channels to a digital broadcasting format.

14. In addition, where ATV and TVB have been allocated this spectrum for a specific purpose, i.e. to provide *new high-definition*

¹ PCCW understands that this spectrum may even have been granted to ATV and TVB *free of charge*.

broadcasting services, then they should be required to fulfill this requirement.

15. It is therefore surprising to find, in the press release issued by the Broadcasting Authority (“BA”) on 17 December 2005 that ATV has now been permitted to use its SFN spectrum (at least partly) for the broadcasting of *standard* definition television programmes. In the press release, the BA states:

At its meeting today (Dec 17, 2005), the Broadcasting Authority (BA) approved the investment plans on digital terrestrial television (DTT) programme services of the two domestic free television programme service licensees, viz. Asia Television Limited (ATV) and Television Broadcasts Limited (TVB), having regard to the requirements under the Government’s DTT policy framework, the adequacy of the investment to meet their programming proposals, and the expert assessment by an external consultant.

*To meet the Government’s policy framework, ATV has committed [...] to provide a hybrid digital service of high definition television (HDTV) and multi-channel broadcasting. The proposed plan is to launch **four new standard definition television (SDTV) channels** [...] and not fewer than 14 hours of HDTV programmes during prime time per week starting from end 2007. [Emphasis added]*

16. This acquiescence for standard definition television channels is a step backwards and is inconsistent with the purposes for which the spectrum was granted. It is unfair to operators who are willing and able to make better use of the SFN spectrum to offer full high-definition broadcasting services. The granting of this additional spectrum to ATV and TVB was also made without notice to other interested parties.

17. In addition, for the same reasons mentioned above, ATV and TVB should not be permitted to make use of the SFN spectrum to provide mobile TV services. If they wish to offer mobile TV services then they should be subject to the same procedures and requirements as all other interested operators. An asymmetrical approach distorts the market and should not be allowed.

18. Secondly, per the DTT Implementation Statement, the CITB intends to withhold the two remaining SFN channels pending confirmation from ATV and TVB that it is technically feasible to use the

SFN spectrum for delivering high-definition broadcasting services. This effectively leaves the timing of the availability and use of the two remaining SFN channels directly in the hands of ATV and TVB; two entities that will establish a significant lead over their competitors in the market as direct a result of being granted early access to spectrum and a say in when others can have access to frequency to provide competing services.

19. Parties who are interested in offering high-definition broadcasting services should not need to wait for ATV and TVB's confirmation before being allowed to use the spectrum. They should be permitted to conduct their own independent tests concurrently with ATV and TVB using whatever technology they consider appropriate. If not, this would be undermining the technology neutral approach that has been advocated by the CITB for spectrum allocation, allow ATV and TVB to gain a (further) head start and substantially distort the market.

20. The current policy approach clearly favours the incumbent Free-To-Air ("FTA") television broadcasters (ATV and TVB) and leaves the decision as to spectrum availability directly or indirectly within their control. Several years ago this may have seemed appropriate, but markets and competition change. Allowing one competitor to determine the nature, scope and timing of another competitor's market access is obviously not a sensible approach. This is unreasonable given that the FTA television service providers directly compete with the pay television service providers for viewers, advertising, content, etc. The approach adopted by the CITB in the DTT Implementation Statement is therefore discriminatory and now needs to be corrected in order to reflect the state of the market today.

21. On this basis, PCCW would recommend that the CITB take this opportunity to review the provisions contained in the DTT Implementation Statement, with a view to making appropriate amendments, so that no operator is unduly favoured and a level playing field is established in the market for the provision of digital broadcasting services.

In the remainder of this submission, PCCW responds to the specific questions raised by the CITB in its Consultation Paper.

DIGITAL BROADCASTING: AN OVERVIEW

22. Digital broadcasting refers to three main types of services, namely: mobile TV, DAB, and DTT. The questions raised by the CITB in this section of the Consultation Paper, however, focus specifically on mobile TV services.

23. The CITB describes mobile TV as the wireless transmission of video for reception on the move by mobile or portable devices. Whilst this is a satisfactory definition, it is interesting to point out that, in practice, the viewing of mobile TV is not necessarily confined to consumers who are *on the move*. Experience around the world has indicated that there are customers who are using their mobile TV device indoors and even as a second television set in the home. This is significant, as it raises an important issue about the need for mobile TV services to have good indoor coverage when they are rolled out in Hong Kong. Good indoor coverage and in-building penetration are highly dependent on the availability of sufficient hilltop and rooftop sites to enable mobile TV operators to effectively deliver service to customers.

24. According to the CITB, the range of available mobile technologies include:

- Digital Video Broadcasting for Handheld devices (“**DVB-H**”);
- Terrestrial Digital Multimedia Broadcasting (“**T-DMB**”);
- Satellite based Digital Multimedia Broadcasting (“**S-DMB**”);
- Media Forward Link Only (“**MediaFLO**”); and
- Other mobile technologies such as Integrated Services Digital Broadcasting – Terrestrial (ISDB-T), Digital Audio Broadcasting – Internet Protocol (DAB-IP) and China Mobile Multimedia Broadcasting (CMMB).

25. In the Consultation Paper, the CITB states:

We welcome advice on other emerging mobile technologies that support video transmission services and what forward planning the Government should take to facilitate the deployment of such technologies in Hong Kong.

26. PCCW is not aware of any other mobile technology that is being used to deliver mobile TV services.

27. In terms of the technologies mentioned in the Consultation Paper, the Government should not favour one particular technology over another. A market-led and technology neutral approach should be adopted. This means that mobile TV operators should be free to choose whatever technology they see fit to roll out their service. This market-based approach would be consistent with the policy that has recently been announced by the CITB in its Radio Spectrum Policy Framework² and which the Government has consistently advocated³.

28. In the Consultation Paper, the CITB states:

We welcome views and information on the trial or rollout of mobile TV services in other parts of the world and comments on the risks and opportunities afforded by mobile TV services for Hong Kong's communications industry and market.

29. The CITB has already painted a very comprehensive picture of the state of mobile TV development around the world in the Consultation Paper. The general message seems to be that the mobile TV market is still very much in its infancy, with many operators adopting a wait-and-see approach, although some countries such as South Korea and Japan have recorded limited success. It is interesting to note that the high uptake of mobile TV services is normally associated with high 3G mobile penetration. This could be an important indicator as to the future success of mobile TV services in Hong Kong.

30. For those countries in which mobile TV services have been slow to take off, it has been cited that the main reason for this is the low number of available channels and poor handset choice. Again, these are factors

² *Radio Spectrum Policy Framework* issued by the CITB on 24 April 2007 (“**Policy Framework**”).

³ For instance, refer to the Government's May 1998 *Statement on Competition Policy* in which it advocated maximizing reliance on, and minimizing interference with, market mechanisms.

which need to be taken into consideration if mobile TV services are to be successfully rolled out in Hong Kong.

31. In Hong Kong, a mobile TV service of sorts is already available via 3G mobile handsets using video streaming technology based on a *unicast* system. PCCW, has adopted a *broadcast* system to provide real time viewing of its **now TV** channels using Cell Multimedia Broadcast (“**CMB**”) technology. The “mobile TV” service in Hong Kong is, however, presently characterized by a limited number of viewing channels and less than perfect picture quality. Other operators such as TVB are also conducting mobile TV service trials.

32. Future mobile TV development in Hong Kong is likely to be driven by the existing providers of mobile TV services, i.e. the 3G mobile operators, given their existing base of customers. The important question that these operators now need to address, therefore, is whether to continue development of their mobile TV service using 3G technologies such as High Speed Downlink Packet Access (HSDPA), CMB and Multimedia Broadcast Multicast Service (MBMS), or to adopt new means of service delivery using the standardized mobile TV technologies described in the Consultation Paper (i.e. DVB-H, T-DMB, S-DMB and MediaFLO), which would ultimately be able to deliver more channels and better picture quality. In relative terms, however, the latter course of development would be more capital intensive.

33. The development path adopted by each operator would depend on how important it views mobile TV services to its core business, expected additional costs/ revenues, etc. and how successful the operator expects mobile TV services to be in Hong Kong. PCCW considers the critical success factors to be:

- Availability of devices to support mobile TV services;
- Amount of spectrum made available to deliver a sufficient number of channels to the viewer; and
- Consumer demand for mobile TV services in Hong Kong based on content and pricing.

The CITB, in conjunction with the Telecommunications Authority (“**TA**”), could play its part in the development of mobile TV services by at least ensuring that sufficient spectrum is available for use.

SPECTRUM AVAILABILITY

34. The CITB has identified four frequency bands which are suitable for providing digital broadcasting services, including mobile TV, DTT and DAB. These bands include:

- Band III (174MHz – 230MHz);
- L Band (1466MHz – 1480MHz);
- UHF Band (470MHz – 806MHz); and
- S Band (2500MHz – 2690MHz).

35. The spectrum bands that can be used to deliver each of the three services and the technologies that can be deployed in each band are summarized in the table below. This table has been extracted from the Consultation Paper. Note that certain technologies can only be used in specific bands:

	Mobile TV	DTT	DAB
Band III	T-DMB, DAB-IP	×	✓
L Band	T-DMB, DAB-IP and DVB-H	×	✓
UHF	DVB-H MediaFLO	DVB-T or National standard ¹¹	×
S Band	Assessment to be made after WRC-07		

¹¹ ATV and TVB proposed they would adopt the national standard for DTT.
WRC-07 = World Radiocommunication Conference 2007 to be held in Geneva.

36. For S Band, the CITB notes that this frequency range is being used in South Korea and Japan to offer mobile TV services. In Hong Kong, however, this range has already been allocated as the expansion band for 3G mobile services in accordance with the recommendations of the International Telecommunication Union (ITU). In addition, it has been proposed to use this band for Broadband Wireless Access (“**BWA**”) services⁴. There is therefore expected to be considerable operational

⁴ Refer to Paper No. 3/2006 issued by the Radio Spectrum Advisory Committee at the Office of the Telecommunications Authority (“**OFTA**”) dated 17 February 2006 on *Frequency Bands for Broadband Wireless Access*.

issues arising from the control of interference if this band is also used for mobile TV, DTT or DAB services. As the World Radiocommunication Conference 07 to be held in Geneva in October this year will discuss the technical criteria for the operation of broadcasting satellite services and BWA services in this band, it would not be appropriate to use S Band for the delivery of mobile TV, DTT or DAB services at this point in time. Accordingly, the use of the S Band will not be considered further in the rest of this discussion.

37. In the Consultation Paper, the CITB states:

We welcome comments on the above analysis of spectrum availability for digital broadcasting services.

In particular, we invite comments on whether the spectrum in Band III and L Band and two SFN multiplexes in the UHF Band should also be made available for mobile TV services, subject to review of the spectrum allocation and assignment arrangements.

DTT

38. Of the three remaining bands (after discounting the S Band), DTT can only use the UHF Band, so there is effectively no choice to be made. DTT can be offered using either DVB-T technology or the national standard in the UHF Band.

DAB

39. For DAB, only Band III and L Band are available as choice. PCCW does not have any strong preference as to which band should be made available for DAB services but notes the CITB remarks in the Consultation Paper that L Band is not commonly used at present for DAB in overseas jurisdictions. This is because of the lack of availability of consumer products which are able to receive signals in this band. On this basis, perhaps it would make sense for DAB services to use Band III.

Mobile TV

40. In deciding which frequency band is best used to provide mobile TV services, it is important to look at which technologies will be widely supported by devices which incorporate existing mobile technologies and

mobile TV technologies in Hong Kong. This will then determine which of the three remaining frequency bands (Band III, L Band and UHF Band) is best deployed to provide mobile TV services.

41. Of the group of technologies that are currently able to deliver mobile TV services, PCCW considers, after studying all the options available, that DVB-H and MediaFLO offer the most promise in terms of number of channels that can be supported, data rate and indoor coverage. If a Mainland mobile TV standard becomes available, this too could be considered, but service roll out would be inevitably slow as operators would need to wait for vendors to produce high volume, low cost mobile devices which are compatible with the new standard.

42. DVB-H is a member of the European DVB broadcasting standards. Per the Consultation Paper, a single frequency band using DVB-H technology could deliver around thirty mobile TV channels to a seven-inch display device. DVB-H is also supported by major handset vendors such as Nokia, Motorola, Samsung, LG, ZTE and Sagem, and was put forward as the preferred technology for the development of mobile TV in Europe by the European Commissioner for Information Society and Media, Viviane Reding, at the Mobile TV Conference, International CeBIT Summit, held in Hannover, Germany on 16 March 2007⁵.

43. MediaFLO is a proprietary based technology developed by Qualcomm in the USA. It is designed to reinforce mobile phone technologies to support high capacity video transmission. Per PCCW's assessment, using MediaFLO, a mobile TV service should be able to provide at least twenty channels. MediaFLO is supported by handset vendors such as Motorola, Samsung, LG, Kyocera, Pantech and Sharp, and is one of the national mobile TV standards in the US, ratified by the Telecommunications Industry Association (“TIA”)⁶.

⁵ Refer to the speech made by Viviane Reding at the Mobile TV Conference at <http://www.europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/154&format=HTML&aged=0&language=EN&guiLanguage=fr>

⁶ Refer to standard published by the TIA on *Forward Link Only Air Interface Specification for Terrestrial Mobile Multimedia Multicast* (TIA-1099).

44. On this basis, given that DVB-H and MediaFLO can only be used in the UHF Band, it is clear that, whilst PCCW considers that spectrum should be made available in Band III and the L band for mobile TV services, the UHF Band is, for all intents and purposes, the most appropriate band for the future development of mobile TV services in Hong Kong⁷.

45. This presents a problem since, as already noted above, the UHF Band is also being used to provide DTT services. This is not helped by the fact that, in the CITB's DTT Implementation Statement, it has deemed it appropriate to allocate ATV and TVB additional spectrum from this frequency range on top of that which is necessary to enable them to migrate their existing analogue channels to a digital broadcasting format. This has artificially (and needlessly) created a shortage of spectrum in this band and does not leave sufficient frequency available for the provision of mobile TV services other than the two SFN multiplexes that have not been taken up by ATV and TVB.

46. Whilst PCCW acknowledges that more spectrum from this band will be released for use in 2012 when both ATV and TVB cease analogue broadcasting, this will effectively have a dampening effect on mobile TV investment in the intervening years. It is therefore imperative that the CITB take this opportunity to review the provisions in the DTT Implementation Statement, with a view to making the necessary amendments to ensure that more spectrum from the UHF Band is made available to the industry as soon as possible, so as not to hinder the development of mobile TV services in Hong Kong. Indeed, the need to review the DTT Implementation Statement is correctly noted by the CITB in the Consultation Paper⁸.

47. This artificial shortage of UHF spectrum is likely to constrain the number of TV channels available and also force the price for spectrum upwards, making mobile TV investment an unnecessarily expensive

⁷ Whilst DVB-H can also be used in the L Band, it would be much more expensive compared to use in the UHF Band because of the additional number of transmitters required to cover the short range.

⁸ Refer to paragraph 23 and paragraph 28 of the Consultation Paper.

investment and limiting the number of service providers. This cannot be good for Hong Kong.

SPECTRUM ALLOCATION

48. In this section of the Consultation Paper, the CITB puts forward three approaches to the allocation of spectrum for digital broadcasting purposes:

- (i) A *service neutral approach*, whereby spectrum in the requisite frequency bands will be made available in accordance with the spectrum release plan⁹ and investors making their own decisions as to which services (mobile TV, DTT or DAB, or any combination of the foregoing) the spectrum will be used for, and the technologies to be adopted;
- (ii) A *conventional approach*, whereby individual segments within the available frequency range will be earmarked specifically for the provision of mobile TV, DTT and DAB services; and
- (iii) A *pro-mobile TV approach*, whereby the spectrum will be allocated primarily for mobile TV services but investors permitted to offer other digital broadcasting services, e.g. DAB, as ancillary services.

49. In the Consultation Paper, the CITB states:

We invite comments on the approach to allocate spectrum resources for the three digital broadcasting services in question.

We also welcome any suggestions other than the above three proposed options.

50. PCCW considers that, as far as possible, the regulator should let operators decide on matters pertaining to the use of spectrum frequency. This is because a market-led, technology neutral approach always leads to the most economically efficient use of the 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 these services. This approach is consistent with the guiding principles for spectrum management stated by the CITB in the Policy Framework:

⁹ A spectrum release plan, indicating the frequencies planned to be released for use in the coming three years and the services intended to be offered under each frequency range, is to be published by the TA in accordance with the Policy Framework.

The policy inclination is that a market-based approach in spectrum management will be used for spectrum wherever TA considers that there are likely to be competing demands from providers of non-Government services, unless there are overriding public policy reasons to do otherwise.¹⁰

51. A market-led approach removes the need for the regulator to make arbitrary decisions regarding the amount of spectrum to be allocated for each of the three services in question, i.e. mobile TV, DTT and DAB.

52. On this basis, PCCW would primarily recommend that a service neutral approach be adopted in the allocation of spectrum for digital broadcasting services. This would enable operators who are allocated spectrum to decide for themselves how best to make use of the frequency band¹¹.

53. The conventional approach could be considered as an alternative option if the CITB is concerned about the potential operational difficulties, e.g. interference, arising from unspecified or uncoordinated use of the spectrum. This would, however, mean that the CITB must firstly determine the spectrum ranges that are to be allocated to each of the three digital broadcasting services dealt with in the Consultation Paper (mobile TV, DTT and DAB).

54. In this regard, PCCW notes that OFTA has already written to operators in the industry asking them, amongst other things, to indicate which type of service they would be interested in providing and the spectrum bands they would prefer to use. The responses received by OFTA to this letter could be used to determine the spectrum bands that need to be allocated to each service.

55. PCCW does not see any reason for a pro-mobile approach to be adopted. This is inflexible and against the Government's technology neutral principles. As the future for mobile TV services is still uncertain, there is also the risk that strictly requiring the spectrum to be used for

¹⁰ See paragraph 3.1 of the Policy Framework.

¹¹ In reality, it is likely that operators will choose to make use of the spectrum to offer mobile TV services given the lack of success of DAB services around the world.

such services may not result in the best use being made of the scarce frequency resources.

56. PCCW has no other suggestions to put forward in addition to the three options proposed in the Consultation Paper.

SPECTRUM ASSIGNMENT

57. In line with the spectrum management principles stated in the Policy Framework, the CITB proposes that an auction process be used to determine the party to whom the spectrum should be awarded for the provision of digital broadcasting services.

58. In this regard, the CITB makes reference to the spectrum auction process that was adopted for 3G mobile services in 2001. The CITB suggests that service roll out obligations should apply as well as the payment of a Spectrum Utilization Fee (“SUF”).

59. In the Consultation Paper, the CITB states:

We invite comments on whether, in pursuance of a market-led approach, we should assign the spectrum available in Band III and L Band and the two SFN multiplexes in the UHF Band for relevant digital broadcasting services by auction with appropriate rollout obligations, and whether a SUF should be charged for such uses.

60. PCCW concurs with a competitive auction process being adopted to determine the party to whom the spectrum should be awarded. This would be in line with a market-led approach and ensure that the spectrum is granted to the operator that is most in need of the frequency. The inclusion of a vetting step in the qualification stage of the auction process would also ensure that bidders are financially capable of providing service if they are awarded the spectrum.

61. As spectrum is a limited public resource, it is only appropriate to charge operators for the use of the spectrum via an SUF. The level of the SUF would be determined via the auction. This acts to ensure that the spectrum is awarded to the operator who most values it. Spectrum that can create more value for customers should be able to command a higher SUF.

62. 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 without going through a proper auction process or being subject to an SUF. This is clearly unfair to the existing competing

providers of broadcasting services and other potential service providers wishing to, and willing to pay for, use of the spectrum.

63. PCCW, nevertheless, questions the need to include service roll out obligations along with the award of spectrum. The auction-based SUF and any annual licence fees payable by the successful bidder should be sufficient incentive to ensure that service is rolled out.

LICENSING ARRANGEMENT

64. Under the existing regime, the broadcasting of television programmes is normally regulated under two separate Ordinances. The *network carriage* part of the service (which relates to the infrastructure required to deliver the programmes) is regulated under the Telecommunications Ordinance (“**TO**”), whereas the *content* part of the service (which relates to the actual provision of television programmes) is regulated under the Broadcasting Ordinance (“**BO**”).

65. On this basis, the regulation of the network carriage part of a mobile TV service seems fairly straightforward. As stated in the Consultation Paper, network carriage is licensed under the TO via a mobile carrier licence or, in the future, if a unified carrier licence is introduced, under this new licence.

66. Regulation of content delivered via a mobile TV service, i.e. mobile TV programme services, however, are less clearly defined and require further examination.

67. In the Consultation Paper, the CITB states:

We invite comments on whether mobile TV programme services should be licensed under the Broadcasting Ordinance and regulated accordingly through appropriate licensing conditions and codes of practice by the relevant authorities, and if so, how this should be achieved vis-à-vis the current licensing framework.

68. The question that must be addressed here is whether mobile TV programme services fall within the provisions of the BO and hence subject to the regulations specified in the BO.

69. At the outset, it is important to point out that the BO only governs broadcasting services. Section 5 of the BO states that a person shall not provide a “broadcasting service” without firstly obtaining a licence under the BO.

70. A “broadcasting service” is defined under section 2 of the BO as one of the following services:

-
- A domestic free or pay television programme service;
 - A non-domestic television programme service; or
 - Another licensable television programme service.

71. As noted in the Consultation Paper, with the exception of “non-domestic television programme services”, which do not primarily target Hong Kong¹², the other two groups of services are specifically defined in the BO as television programme services which are intended to be available for reception by an audience of “specified premises”.

72. The term “specified premises” is defined under the section 2 of the BO as:

[...] any domestic premises, or hotel room, in Hong Kong.

73. On this basis, given the nature of the television programme service that is expected to be delivered to mobile TV devices in the future (primarily targeting Hong Kong audiences), and the fact that viewers of mobile TV programmes will not be confined to either domestic premises or hotel rooms but will be “on the move”, mobile TV programme services do not fall within the definition of a “broadcasting service” and hence are not regulated by the BO.

74. Thus, an anomaly arises. Whilst content delivered to fixed television sets at home is regulated under the BO (because it is delivered to “specified premises”), the *exact same content* transmitted to mobile devices falls outside the ambit of the BO (because mobile handsets are not considered to have any connection with domestic premises or hotel rooms). There is clearly an inconsistency here, arising from the restrictive wording used in the BO. PCCW would suggest that either all television content be regulated under the BO or no content be regulated under the BO. It does not seem logical for a different treatment to be applied to the content simply because the receiving device is different.

¹² Non-domestic television programme services are primarily satellite television services uplinked from Hong Kong and targeting the regional market. They do not specifically target Hong Kong in terms of coverage, sources of advertising, subscription revenues, language and degree of active marketing.

75. There is an argument that programmes delivered to mobile handsets need not be subject to the same degree of regulation as those delivered to television sets at home, because mobile handsets are *personal* devices whereas television sets are *shared* devices usually accessible by the entire family, including minors. It may therefore be more important to control the type of content being delivered to television sets at home. Then again, if a person accesses “adult” content on a mobile TV device in a public place, this could easily be viewed by a minor, so there may need to be some kind of control enforced in order to prevent children from being exposed to inappropriate material not just at home, but also in public places.

76. On this basis, it is clear that merely distinguishing between content delivered to *specified* (e.g. fixed) premises and an *unspecified* (e.g. mobile) environment is not sufficient to achieve the purposes of the legislation.

77. PCCW suggests that this issue be usefully addressed when the provisions of the BO are next reviewed. In fact, as recognized in the Consultation Paper, many jurisdictions around the world are still formulating their regulatory positions regarding the treatment of mobile TV services.

78. In any case, the *Control of Obscene and Indecent Articles Ordinance*, which generally covers all types of content¹³ should be sufficient in this case to ensure that material that is broadcast by mobile TV service providers meets minimum statutory standards of decency.

¹³ This Ordinance aims to control “articles” which consist of or contain material that is obscene or indecent (including material that is violent, depraved or repulsive), to establish tribunals to determine whether an article is obscene or indecent, or whether matter publicly displayed is indecent, and to classify articles as obscene or indecent or neither obscene nor indecent, and for matters incidental thereto.

“Articles” means anything consisting of or containing material to be read or looked at or both read and looked at, any sound recording, and any film, video-tape, disc or other record of a picture or pictures.

CONCLUSION

79. From the Consultation Paper and an examination of the technologies most appropriate for the delivery of mobile TV services, it is clear that spectrum in the UHF Band will most likely face the most pressure from competing demands for DTT and mobile TV services.

80. On this basis, it would make sense for as much spectrum as possible to be made available in the UHF Band for these two services so that their development is not hindered. It would be unfair to favour one type of service over another or, indeed, favour one group of operators (e.g. FTA television providers) over another (e.g. pay television providers).

81. To achieve this aim, the CITB must take this opportunity to revisit the UHF Band spectrum allocation provisions it previously made under the DTT Implementation Statement and make appropriate adjustments in order to ensure that no operator is unduly favoured and that a level playing field is established in the market for digital broadcasting services.

Submitted by
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11 May, 2007