



24th January, 2006

Communications and Technology Branch
Commercial, Industry and Technology Bureau
2/F, Murray Building
Garden Road
Hong Kong

Attention: Assistant Secretary (B) 1

Dear sir/madam

Re: Public Consultation on Proposed Spectrum Policy Framework

Motorola thanks the Government of the Hong Kong Special Administrative Region (the Government) for the opportunity to respond to the consultation paper on Proposed Spectrum Policy Framework and we are pleased to contribute our views and comments.

Considerations for a Spectrum Policy Framework

Do you agree that the above considerations, i.e. future shape of radiocommunications, international developments, encourage investment, strategic considerations and fair compensation for the community, should be factored in Hong Kong's spectrum policy framework and the supporting spectrum management arrangements? Are there any other factors or considerations that should be taken into account?

Comment:

The radio frequency spectrum is a valuable and finite resource and it should be managed for the benefit of the community. As such one of the objectives of the spectrum policy framework is to ensure the present and future availability of spectrum for all user groups in the community: government users (including providers of emergency services), private enterprises and the consumer at large.

In Motorola's vision of seamless mobility, users will be able to stay connected wherever they are: in the home; at work; in the car; and everywhere in between. It means seamless connections between people to people; people to things; things to people; and things to things. Ubiquitous broadband connectivity is essential, as is the availability of spectrum¹ to enable full mobility. Just as essential is a light –touch regulatory regime that is flexible to enable the adoption of new technologies and services.

¹ Licensed and licence-exempt spectrum.

Spectrum Policy Objectives

31. We propose to develop and publish for the information of all stakeholders a set of high-level spectrum policy objectives. The TA can then formulate his spectrum strategy and management arrangements having regard to those objectives. Drawing on the recommendations from the consultant in section 4.1 of the Consultancy Report, **we propose to adopt the following spectrum policy objectives for Hong Kong –**

- (a) **To facilitate the most economically and socially efficient use of spectrum with a view to attaining maximum benefit for the community;**
- (b) **To achieve technically efficient use of spectrum to facilitate the introduction of advanced and innovative communications services and strengthen Hong Kong’s position as a telecommunications and broadcasting hub;**
- (c) **To fulfil Hong Kong’s regional and international obligations relating to the use of spectrum;**
- (d) **To strengthen Hong Kong’s strategic position as a world city and the gateway between the Mainland of China and the world by facilitating the provision of key services in Hong Kong which are deployed, or will be deployed, globally or in the Mainland of China; and**
- (e) **To ensure that necessary spectrum is reserved for government services.”**

Do you agree with the proposed spectrum policy objectives? Are there other spectrum policy objectives that the TA should take into account when making spectrum management decisions?

Comment:

We agree with the above proposed spectrum policy objectives and would like to propose that the spectrum reserved for government services should include frequency bands that have been identified for the providers of emergency services² by the ITU³ and APT⁴.

Guiding Principles in Spectrum Management

36. Having regard to Recommendation 4.2 in the Consultancy Report,

² Public protection and disaster relief

³ ITU-R WRC-03, Resolution 646

⁴ APT Recommendation on use of the band 4940-4990 MHz for public protection and disaster relief (PPDR) applications.



we propose, as a published guiding principle under the spectrum policy framework, that the TA should use market-based approach in spectrum management when there are competing commercial demands for the spectrum, unless there are overriding public policy reasons to do otherwise.

Those public policy reasons should be published for transparency to the industry.

Do you agree with the proposed guiding principle in spectrum management, especially that market-based approaches should be considered first for spectrum where there are competing commercial demands?

Comment:

We agree with the proposed guiding principle of employing market-based approaches provided such approaches are not focused to maximize revenue. In addition, considerations should be made based on the type of services generated by the identified spectrum.

Spectrum Rights Before Expiry of Assignment

41. Having regard to the recommendations of the consultant **we propose to state explicitly under the proposed spectrum policy framework that the TA should not vary or withdraw frequencies assigned to a licensee before the expiry of the spectrum assignment except in circumstances where public interest, or government policies and international obligations so require, or where interference between legitimate spectrum users, render it necessary to exercise such powers. We also propose to make clear under the spectrum policy framework that there should be minimum notice periods to be given to affected spectrum assignees to enable them to plan ahead.”**

Do you agree with the proposal to prescribe the circumstances under which spectrum assignment may be varied or withdrawn before the assignment expires? Are there other circumstances for variation or withdrawal of spectrum assignment before expiry that should be taken into account? What are your suggestions on the appropriate minimum notice periods?

Comment:

We are in favour of the proposal as we believe it would provide more certainty to spectrum assignment holders and encourage greater investment in their spectrum assignments.

One circumstance under which spectrum assignments may be varied or withdrawn is non-conformance to a spectrum utilization policy.



In Canada⁵, spectrum assignments in a frequency band are issued or renewed for radio systems that conform to the spectrum utilization policy or radio system policy applicable in that band. When radio systems become non-conforming as a result of a change to the spectrum utilization policy the operators of non-conforming radio systems are given a notification period of five years to modify or replace their radio system to one that is conforming.

Spectrum Rights at the End of Assignment

46. We do not consider that there is a strong need to change the current arrangement (i.e. no legitimate expectation for spectrum right after the end of a spectrum assignment) and do not propose any change in this regard. However, for licences (in particular carrier licences) where substantial investment in the underlying infrastructure is required, we accept the consultant's recommendation that a sufficiently long notice period should be given before the expiry of the spectrum assignment, if the TA intends to change or not to renew the spectrum assignment. This should be stated explicitly under the spectrum policy framework. The TA should have regard to the practices in other jurisdictions and the duration of the service licences and draw up the appropriate notice periods for different types of spectrum assignments.

Do you agree with the proposal of status quo for spectrum right after the expiry of a spectrum assignment, i.e. no legitimate expectation for renewal? What is your suggestion of the minimum notice period for the intention to change or not to renew the spectrum assignment of a licence where substantial investment in the underlying infrastructure is required?

Comment:

For spectrum assignments that are renewed annually we are of the view that certainty of renewal of spectrum assignment will encourage investment and it will help spectrum assignees in securing financing to expand or upgrade their systems.

In the case of spectrum assignments for carrier licence, we are aware of the New Zealand government⁶ adopting the policy of reassigning commercial spectrum rights 5 years before expiry for a further 20 years. This renewal will be subject to review on a case-by-case basis to ensure consistency with the country's international radio obligations and with the general objective of maximising the value of the spectrum to society as a whole.

⁵ Industry Canada: [General Information Related to Spectrum Utilization and Radio Systems Policies](#)

⁶ Review of Radio Spectrum Policy in New Zealand – 2005, Page 36

With rapid developments in radiocommunications technologies we believe there may be a case for making provisions in the spectrum policy framework to allow the flexibility of reviewing the tenure of spectrum rights before their expiry. This is to maximise benefits to the community by encouraging continual upgrades and investment in newer and more spectral efficient technologies.

Spectrum Refarming

49. We thus propose that the TA should be required to undertake an appraisal of the impacts of different options, including an option of “do nothing”, so as to provide a firm and transparent basis for his consideration in the exercise of statutory powers for spectrum management purposes.

Do you agree that the TA should be required undertake impact appraisals before initiating spectrum refarming exercises? What other arrangement should be put in place for spectrum refarming exercises?

Comment:

We agree that impact appraisals be conducted before initiating spectrum refarming exercises.

Spectrum Rights for Non-licensees

52. We do not propose that this issue needs to be covered in the proposed spectrum policy framework at this juncture. If there is strong demand for the introduction of some form of spectrum rights for non-licensees, the TA could consider this possibility.

For non-licensees under the TO, do you have demand for spectrum rights? If so, what kind of spectrum rights would you seek? For licensees under the TO, what are your views on our proposal not to cover spectrum rights for non-licensees in the spectrum policy framework?

Comment:

There may be a need in the spectrum policy framework to provide guidance to the spectrum manager that such spectrum use (by non-licensees) receive no protection from interference from licensed systems, in particular licensed systems operating in adjacent frequency bands or channels.

Spectrum Release Plan

55. We propose that, under the proposed spectrum policy framework,

the TA should publish a spectrum release plan for the supply of spectrum to the market through an open, competitive bidding process in the following three years. In drawing up the plan, the TA should have regard to a host of factors, including the availability of spectrum for assignment, the international spectrum allocation, technology and equipment availability, feedback and as well as policy objectives and updated by the TA annually on the latest developments, so that the industry as well as policy objectives and strategies. The plan should be updated by the TA annually on a rolling basis taking into account the latest developments, so that the industry will always have a three year horizon of likely spectrum supply

56. Do you support the proposal to publish 3-year rolling spectrum release plans for spectrum to be released to the market through open, competitive bidding processes? What types of information would you propose to include in the plans?

Comment: We have no comment.

Secondary Trading of Spectrum

64. We propose, as a broad direction under the proposed spectrum policy framework, that consideration should be given to introducing secondary trading of spectrum in the longer term future, subject to a study on the feasibility of this proposal in Hong Kong.

Do you agree that the introduction of secondary trading of spectrum in Hong Kong can improve the efficient use of spectrum? How should potential anti-competitive behaviour in the spectrum market be addressed? How should gains in spectrum trading be treated? What are your views on other implementation issues identified by the consultant?

Comment: We have no comment

Spectrum Liberalisation

69. More importantly, the consultant advised that spectrum liberalisation is not yet proven in a small, densely populated place like Hong Kong. **Given the potential complication involved, we do not propose to introduce spectrum liberalisation under the proposed spectrum policy framework at this juncture, but to monitor its development in other jurisdictions and consider further study for its general introduction in Hong Kong.**

Do you agree that we should further monitor developments in other jurisdictions regarding spectrum liberalisation before considering whether we should introduce it to Hong Kong?

Comment:

The flexibility provided by spectrum liberalization will encourage the adoption of new technologies and contribute to Hong Kong's position as a telecommunications hub. Hong Kong should consider developments in UK and Australia before deferring the introduction of spectrum liberalization.

Spectrum for Government Services

Having regard to the different approaches proposed by the consultant to create incentives for the efficient use of spectrum by government users, **we propose that the spectrum policy framework should include an element whereby spectrum reserved for Government spectrum users should be subject to a regular administrative review mechanism whereby the TA would review, once every three years and taking into account technological development and international best practices, with the users of spectrum reserved for government services how efficiently the spectrum assigned has been put to use, ways to improve the efficiency and the future spectrum requirements for such uses and users.**

Do you agree that the command and control approach for spectrum management should continue to be applied to spectrum for government services?

Comment:

We support the proposal to include a triennial review by the TA and the command and control approach in the management of spectrum for government services.

Spectrum Pricing

77. **We are inclined to propose for consultation that users of spectrum should be required to pay SUF irrespective of whether there is competing commercial demand for the spectrum unless there are public policy considerations. As most spectrum users currently do not have to pay SUF, if the proposal is to be implemented, careful consideration would be given to detailed arrangements and adequate lead time would be allowed for parties concerned to get prepared for it.**

78. For spectrum without competing commercial demand, since the market



value is zero, SUF could be set administratively at a relatively low level so that valuable uses of spectrum would not be deterred. For spectrum with competing commercial demands, auction should generally be used to determine the appropriate SUF. However, in situations where it may not be appropriate to use auction (e.g. when a mobile service licence with large customer base is due for renewal), the SUF would still need to be determined administratively. In the UK, this fee is called the Administered Incentive Pricing. **We accept the consultant's recommendation and propose that in the case where spectrum is not auctioned, under the spectrum policy framework, the SUF should be set to reflect the opportunity cost of the spectrum. Such opportunity cost may be determined by taking reference from outcome of a similar spectrum auction in Hong Kong or elsewhere conducted recently, or by considering the least cost alternative method to the use of spectrum.**

Do you agree that SUF should be applicable to commercial use of spectrum irrespective of whether there is competing commercial demand? Do you agree that SUF for spectrum not released through auction should be set to reflect the opportunity costs of the spectrum?

Comment:

In principle we support the application of SUF to encourage efficient use of radio spectrum and we are cognisant of the difficulty in determining the 'right' level of SUF to charge spectrum users in practice and resulting in the SUF becoming an additional expense burden on spectrum users who rely on radiocommunications to enhance the efficiency of their operations.

We are in favour of an initial cautious approach of setting SUF at administrative cost recovery level for frequency bands where there are no competing commercial demands and at a higher level where there are competing commercial demands.

Yours faithfully

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