

Consultation Paper on Proposed Spectrum Policy Framework

Foreword

This document sets out the Government's proposals on a policy framework for radio spectrum.

Please send your comments on the proposals to the Communications and Technology Branch of the Commerce, Industry and Technology Bureau by 24 January 2007 by any of the following means:

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Executive Summary

Radio spectrum is a finite public resource. Its availability is important to the operation of radiocommunications networks and services. Radio spectrum needs to be managed to manage demand and to contain interference to acceptable levels.

2. With fast technological advancements and dynamic market developments, there is a need to review the spectrum policy with a view to formulating a responsive and transparent policy that enables the community to reap maximum benefits from the deployment of spectrum. This consultation paper sets out the proposed high-level spectrum policy framework.

3. In developing a spectrum policy framework, the Government should have regard to a number of considerations. These considerations include the ability to accommodate the future shape of radiocommunications, international developments in spectrum policy and management frameworks, clarification of spectrum allocation and assignment procedures that could encourage investment by the industry, the flexibility to support wider strategic policy objectives for the overall benefit of Hong Kong, the ability to serve policy objectives that support social needs, and the provision of fair return to the community for the use of spectrum for commercial purposes.

4. Having regard to the above considerations, the consultation paper proposes a spectrum policy framework that covers six aspects – spectrum policy objectives, guiding principles in spectrum management, spectrum rights, spectrum supply (including spectrum trading and liberalisation), spectrum for government services and spectrum pricing.

5. The proposed spectrum policy objectives, set out in paragraph 31 of the consultation paper, would provide guidance for the Telecommunications Authority (TA), the statutory spectrum manager in Hong Kong, in formulating his spectrum strategy and management arrangements. In particular, one of the policy objectives is to strengthen Hong Kong's strategic position as a world city and the gateway between the Mainland 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. This provides a new dimension in the TA's management of spectrum in order to cater for the increasing economic integration between Hong Kong and the Mainland and the potential wider economic benefits that may be brought about through spectrum management

decisions.

6. Drawing on the practice of some overseas regulators, the consultation paper proposes that the spectrum policy framework should set out a guiding principle that the TA should use market-based approach in spectrum management when there are competing commercial demands, unless there are overriding public policy reasons to do otherwise, which should be published for transparency to the industry. The publication of this guiding principle in spectrum management will provide transparency to and predictability of regulatory decisions in spectrum management.

7. Because some radiocommunications equipment and receivers can have an economic life of at least 5 to 10 years, the lack of predictability of how the TA may exercise his statutory powers to vary or withdraw spectrum assignment could deter investment. The proposed spectrum policy framework clarifies 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 policy or international obligation, or where interference between legitimate spectrum users, renders it necessary to exercise the statutory powers. The TA should also give minimum notice periods to affected spectrum assignees to enable them to plan ahead.

8. On the other hand, the spectrum policy framework re-affirms that there is no legitimate expectation for spectrum rights after the end of a spectrum assignment, but for licences where substantial investment in the underlying infrastructure is required, a sufficiently long notice period should be given before the expiry of the spectrum assignment. The TA will draw up the appropriate notice periods for different types of spectrum assignments.

9. For spectrum refarming exercises, which is a significant regulatory intervention to introduce new spectrum use for the benefit to consumers and new spectrum users by vacating existing spectrum users, the spectrum policy framework will require the TA 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.

10. The possibility of according spectrum rights for non-licensees under the TO is raised in the consultation paper, but we do not propose that this issue needs to be covered in the 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.

11. Spectrum supply for specific applications could potentially come from three sources – the TA, other spectrum users whose assignment permits the use of spectrum for those applications, and the existing users' own spectrum if the use of spectrum could be changed to those applications.

12. On spectrum supply from the TA, the spectrum policy framework proposes that 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. The plan should be updated annually on a rolling basis taking into account the latest developments. This plan should give the industry a three-year horizon of likely spectrum supply from the TA, in order to facilitate them to make informed choices about infrastructure investment, service development, and which bands to bid for.

13. On spectrum supply from other spectrum users, this can be facilitated through permitting secondary trading of spectrum in Hong Kong. While spectrum trading can be a significant market mechanism to provide financial incentives for spectrum assignees to put spectrum to the most efficient use, there are substantial implementation issues to be resolved, most significantly the licensing arrangements to facilitate spectrum trading, the question of trading gains from sale of spectrum obtained, and the regulatory measures to prevent anti-competitive practices such as hoarding of spectrum by operators with means. The consultation paper proposes, as a broad direction under the 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.

14. On spectrum supply through allowing a spectrum user to change the technology and/or use of the assigned spectrum without the need to obtain consent from the regulators (generally called “spectrum liberalisation”), there are constraints on the degree of flexibility that could be introduced, particularly from interference management angle. Since spectrum liberalisation is not yet proven in a small, densely populated place like Hong Kong, we intend to monitor its development in other jurisdictions and consider further study for its general introduction in Hong Kong.

15. Because of the nature of government services, the consultation proposes that spectrum will continue to be reserved by the TA for government spectrum users, but they should be subject to a regular administrative review every three years on how efficiently spectrum assigned to them has been put to use, their future spectrum requirements and ways to improve the efficiency of spectrum usage.

16. Spectrum utilisation fee (SUF) is currently only applicable to spectrum for second and third generation mobile services. It can be a useful financial tool to manage competing commercial demands for spectrum and enable the community to reap financial benefit from the commercial use of spectrum as a public resource. The consultation paper proposes that SUF should be generally applicable to commercial use of spectrum unless there are public policy considerations. However, we note that most spectrum users currently do not have to pay SUF. If the proposal is implemented, careful consideration would be given to detailed arrangements and adequate lead time would be allowed for parties concerned to get prepared for it.

17. For spectrum with competing commercial demands, the auction process should be able to determine the appropriate SUF. For spectrum which is not auctioned, the SUF should be administratively set to reflect the opportunity cost of the spectrum, which may be determined by taking reference from outcome of a similar spectrum auction in Hong Kong or elsewhere conducted recently, or by considering the lowest cost of alternative methods that could meet the spectrum user's communications needs without using the spectrum.