



**HUTCHISON TELEPHONE COMPANY LIMITED**

**SUBMISSION**

**ON**

**CONSULTATION**

**ON**

**“LICENSING OF SPECTRUM IN THE 850 MHZ BAND TO ENABLE THE  
PROVISION OF CDMA2000 SERVICE”**

**5 January 2007**

**The Submission of Hutchison Telephone Company Limited  
in response to OFTA's Consultation on Licensing of Spectrum  
in the 850 MHz Band to Enable the Provision of CDMA2000 Service**

**Overview**

We note that this consultation is being carried out in parallel with the spectrum policy review currently conducted by the Commerce, Industry and Technology Bureau. We are of the view that any plan to release spectrum should be considered and consulted after the conclusion of this important spectrum policy review. This would ensure that the relevant power that the TA might exercise immediately following this consultation would not be overtaken by the relevant telecom policies that are already in the process of being formulated in the current spectrum policy review and can otherwise avoid the ongoing policy deliberation having to "fit in" with or being pre-determined by this immediate exercise of the TA power. This "Policy First" approach is important to demonstrate the consistency between government policies and actions.

**No Rush to License**

The TA should not self-impose a deadline for completing the licensing exercise. This is contrary to his Statement made in November 2004, which described the genesis of the current spectrum policy review and declared the proposed sequence of the ensuing government actions as follows:

"The Government intends to initiate a separate spectrum policy review on the allocation and assignment of radio spectrum for telecommunications and related services. *In the light of the outcome of the review, the Government will initiate the necessary legislative and administrative procedures to implement the revised spectrum policy. The TA will then determine the way forward for the allocation and assignment of the spectrum vacated by the existing IS-95 CDMA system and other available spectrum for mobile and other telecommunications services.* If any operators or parties have any plan to use the spectrum for the deployment of advanced mobile network, they may submit their proposal to the Government during the spectrum policy review. The Government will consider such proposals in the context of the policy review. [Emphasis added]"<sup>1</sup>

In reviewing the various proposals in this Consultation Paper, we note that many specific issues raised in relation to the licence conditions and the spectrum utilization fee (SUF) structure are matters that should instead be resolved holistically in the overall context of the spectrum policy review prior to any specific licensing of mobile services.

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<sup>1</sup> Paragraph 42 of the TA Statement dated 29 November 2004.

For example, the proposal for an upfront one-time payment of SUF is not in line with the existing 2G and 3G SUF structure, which is based on an annual royalty basis. By putting the new licensee under an entirely different SUF structure, the existing 2G and 3G licences would be put in a playing field which is not level. This will place the relevant operators in an unfair competition landscape in the long run.

The other issue is the determination of the reserve price if it were decided that the proposed spectrum assignment is by way of auction. We query how the Government could appropriately determine the reserve price and let the interested bidders properly assess their business case in the absence of a clear understanding of the applicable long-term spectrum policies, such as those in relation to spectrum availability, price standardization, spectrum liberation and trading. This exposes the interested bidders and other market participants to unnecessary regulatory risks.

Without all the relevant policies having been formulated and delineated in the background, any licensing process (together with the underlying assumptions adopted for such licensing process) would not be considered as being transparent and open, and would not be viewed as a market-driven approach.

While Hong Kong should maintain the provision of CDMA service for the benefits of inbound roamers from the Mainland and overseas, the licensing of a full CDMA service network is itself a highly questionable proposal. As the effect of the proposal is the auctioning of the spectrum to facilitate the entry of a fifth 3G licensee that would deploy a network using CDMA2000 technology, we do not agree that it is such an urgent concern that should prevail over the current spectrum policy review process. It appears that the proposed Government action is merely a direct reaction to the expiry of the current CDMA licence by November 2008 and the perceived importance of introducing the technology in question. This is market engineering instead of market-driven.

Pending the deliberation of the relevant issues, our existing IS95- CDMA infrastructures<sup>2</sup> and the established network of roaming agreements based on a Hong Kong mobile network code can serve (as what we have been serving) as the bridge for the seamless migration to the launch of service under the applicable new licence, if it were to be issued after the due process of the spectrum policy review. When circumstances require, we may under appropriate permission continue our existing IS-95 CDMA service beyond the expiry of the current licence. Without any wastage of resources, our IS-95 CDMA service can serve as the back-up service according to circumstances.

### **Licensing of a CDMA Roaming Network**

On the issue of introducing a new 3G network by way of licensing a new CDMA 2000 license, we are of the view that it is not in the interest of Hong Kong to do so. Hong Kong mobile market is already facing over-competition and highly susceptible to deterioration of service

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<sup>2</sup> IS-95B CDMA can support roaming service for inbound CDMA2000 roamers whose handsets may enjoy automatic roaming service in Hong Kong because CDMA 2000 standard is backward compatible with IS-95 CDMA standard.

quality. Back in 2004, OFTA's own commissioned Spectrum Report<sup>3</sup> concluded that there would not be any net gain of consumer benefits from the introduction of a new CDMA 2000 network.<sup>4</sup> It specifically warned that "the business case for any W-CDMA 3G operator in the market is marginal and highly dependent on market share, thus there is a negative impact on incumbents if there is a new entrant to the market".<sup>5</sup> When operators' business case is being put in a marginal position from time to time as a result of over-competition, it would just make it uneconomical to invest in new infrastructure, capacity or service. This would affect the operators' incentive to innovate. Overall service level would also deteriorate in the long run. This affects overall consumers' benefits and the healthy developments of mobile services in Hong Kong.

Furthermore, the introduction of CDMA 2000 service may also bring along these additional complications that would upset consumers benefits and the continuing developments of the virtual cycle of mobile data developments in Hong Kong:

- Issues of technical interoperability such as uncertainties over video call interconnection/multi-media files transfer between WCDMA and CDMA 2000 networks. These are sources of additional gateway costs associated with interconnecting the incompatible networks as well as potential cases for consumers' complaints;
- Contents providers providing for 2 technologies, resulting in market fragmentation and limiting the realization of network effects for a small market such as Hong Kong. This would have adverse impact on the costs of the contents provisioning and would retard the provision of an attractive quantity as well as quality of contents and application to consumers;
- Consumers' confusion over or dissatisfaction about the services, which would lead to increase in complaints regarding marketing conducts and service quality.

In light of these considerations, the more relevant policy objective to implement is to maintain CDMA service for the benefits of inbound roamers from the Mainland and other overseas CDMA networks. To achieve this policy objective, it is only necessary for the Government to license a CDMA roaming network that would cater for voice and data roaming for inbound roamers. While this will achieve the policy objective of maintaining the status of Hong Kong as an international telecommunication hub, it would not result in undesirable effects on the Hong Kong consumers.

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<sup>3</sup> Spectrum's (Spectrum Strategy Consultants) Study on the Hong Kong mobile market for 2G licence renewal: Prospect for a new mobile licence in the 800MHz spectrum band dated November 2004

<sup>4</sup> Page 19 of the Spectrum Report

<sup>5</sup> Page 17 of the Spectrum Report

## **Licensing of a Reduced Size of Spectrum**

On the issue of spectrum management, the TA has the statutory duty to promote the efficient allocation and use of the radio spectrum as a public resource of Hong Kong. Spectrum being public resource must be well managed and conserved for the benefits of the general public.

The 800MHz—900MHz frequency block is a candidate expansion band for 3G-WCDMA service<sup>6</sup> and 2G-GSM service. If CDMA 2000 service is to be licensed, the amount of spectrum to be assigned would have to be carefully considered, taking into account of whether the licensed service is for a full-service network or a roaming network. Even in the case of a full-service network, the TA should not assign a more than necessary amount of spectrum in the licensing exercise in light of the uncertainty regarding its potential usage. We believe that 5MHz × 2 (instead of 10MHz × 2) in the applicable paired frequencies is an optimal amount of spectrum for assignment. This would be sufficient for the new licensee to deploy 4 CDMA 2000 radio carriers. The licensing of a roaming network would require even less amount of spectrum to be assigned.

The above proposal would avoid under-utilisation of over-assigned spectrum, which would be a waste of public resources. Furthermore, over-assignment would pre-empt the future use of the relevant bandwidth for other re-farming and service expansion possibilities.

We therefore caution the Government not to rush into allocating the proposed amount of spectrum for the purpose of licensing CDMA 2000 service. This may also have adverse implications on the government revenue in the long run because the specific assignment for CDMA 2000 service in the Hong Kong market may not realise the most optimal economic value of the spectrum.

## **Conclusion**

It is important that the Government should stay on course in the “policy first” approach in handling this proposed CDMA 2000 licensing. The Government should allow the spectrum strategy review to run its natural course to its conclusion before undertaking any exercise to license mobile services, as clearly promised by the Government in 2004. The Government should not change course in the middle of the spectrum policy review process. Otherwise, it will create regulatory uncertainty, undermine the subsequent policy reviews and adversely affect investment levels in the market and harm consumers in the end.

For Hong Kong consumers, they have been enjoying the robust developments of third generation mobile services since the respective WCDMA operators launched their services one after the other. The take-up rate has been encouraging and the operators have just recently launched their HSDPA networks into service. While the mobile data market is beginning to engage in a virtual cycle of development, the introduction of an additional full service CDMA 2000 network would

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<sup>6</sup> In Australia, Telstra has recently deployed WCDMA service in the 800MHz band. In US, Cingular has also recently deployed WCDMA service in the 800MHz band.

not add to the momentum but would rather bring in all risks associated with over-competition brought about by excessive number of networks, such as wastage of public and private resources, upsetting the cycle to innovate and deterioration of service quality.

The continuation of CDMA service by way of licensing a roaming network would already achieve the important objective of serving the Mainland as well as international roamers without affecting the market development of the Hong Kong mobile market. We believe that this suggested scheme is most beneficial to the continuing healthy and robust developments of the mobile industry, particularly with respect to the growth of mobile data, contents and applications.