Response by Hutchison Telephone Company Limited to Second Consultation Paper on "Arrangements for the Frequency Spectrum in the 1.9-2.2 GHz Band upon Expiry of the Existing Frequency Assignments for 3G Mobile Services".

Introduction and Summary

The Second Consultation Paper ("2CP") sets out (as did the First Consultation Paper) three options as to how to deal with the frequency in the above band ("3G Spectrum") when the existing arrangements expire in October 2016. Option 2 (a full auction) appears to have been ruled out by the Government[1], so we focus on Option 1 (right of first refusal) versus Option 3 (the Government's preferred "hybrid" option, involving re-auctioning one third of the spectrum currently assigned).

Hutchison Telephone Company Limited ("HTCL") continues to believe that giving a right of first refusal to the existing licensees of 3G spectrum (Option 1) is the only rational and reasonable choice for the Government to adopt. Our reasons are set out in detail in our response to the First Consultation Paper. Our views have been re-inforced by the contents of 2CP and can be summarised as follows:

1. By the Government's own admission, the loss of one third of spectrum under its preferred Option 3 will cause substantial disruption to customer services, whereas Option 1 will avoid this.

2. Again by the Government's own admission, Option 1 will encourage continued investment and innovation, whereas its preferred Option 3 would deter it.

3. Such disruption to customer services, investment and innovation will cause substantial damage to Hong Kong's international reputation for high quality, low cost telecommunications services.

4. No evidence has been given of any benefits which outweigh this substantial harm to consumers, investment and innovation, and international reputation. In particular, the Government's proposal will not promote competition – it is more likely to lessen competition on what is already an intensely competitive market.

5. For the reasons set out above, the Government's own decision-making criteria clearly favour Option 1 – the choice of Option 3 is therefore irrational.

6. The Government's preferred Option 3 would infringe the operators' legitimate expectations, whereas Option 1 would not.

7. Option 1 would comply with the Government and Communications Authority's legal duties, whereas Option 3 would infringe them.

8. The Government's proposed spectrum fees are grossly excessive, and will ultimately harm consumers.

[1] The Second Consultation Paper was issued jointly by the Commerce and Economic Development Bureau and OFCA: in this paper we use the term "the Government" to cover both, in the interests of brevity.

Damage to Customer Services

The Government admits that its preferred Option 3 will degrade the quality of customer service if operators lose one-third of their spectrum in the proposed auction. It estimates, for example, that data download speeds could slow down by up to 18% on average for a period of two years. Given that this is an average, this estimate implies that the slowdown in more congested areas such as MTR stations and tunnels and the airport would be significantly higher, even according to the Government's own assessment. Moreover, it does not take into account that the withdrawal of one third of spectrum, against a background of huge growth in mobile data traffic, will substantially increase the number of failed connections, interrupted data sessions, inability to make calls etc.

In fact, the Government's 18% estimate is based on a number of assumptions which are questionable, to say the least, meaning that this average figure may be substantially under-stated.

(a) It assumes a 6-fold growth in mobile data usage from 2012 to 2016. However, it does not address how the 3G operators can meet this demand, when one third of their spectrum is removed and new spectrum is not being made available.

(b) It assumes that 3G operators would upgrade their network infrastructure with the latest technology available, and the expansion/addition of cell sites. However, it is not clear that the products implementing this new technology will be available in the market before 2016, and the scope for adding cell sites in Hong Kong is limited.

(c) It assumes that customers will be willing to upgrade to the latest devices. But it is not clear that the handsets implementing the latest technology will be available in the market before 2016. Moreover, why should customers be required to spend money on new handsets just to avoid an unnecessary degradation in their service? Many may be unwilling or unable to afford to do so. Nor should they be forced to subscribe to 4G services to avoid this degradation.

(d) Because the assumptions at (b) and (c) above are doubtful, the Government's assumption that the combination of (b) and (c) will produce a doubling of network capacity is also highly suspect.

Clearly, it would require strong evidence of huge offsetting benefits to contemplate causing such harm to customers. As noted below, the Government has produced no such evidence.

We understand that the Government has engaged, or will be engaging, a technical consultant to study further the service disruption issue. We believe it is vitally important that the consultant engages in dialogue with the operators on this issue, and that the results of the study are published for public consultation well before the Government makes its final decision.

Damage to Investment and Innovation

The Government acknowledges that Option 1 will "provide the incumbent operators with a stable environment for operation and investment" and that "with certainty in the spectrum assignment for another 15 years, there is little reason for them hold back on their investment in the 1.9 – 2.2 frequency band". Under its preferred Option 3, on the other hand, the Government has said that "investment would be held up until the situation becomes clear". In other words, the Government concedes that investment in this band will be deterred under its preferred Option 3, at least in the period until the result of the auction was known in October 2014. However, even after that date, if the result was that the operators lost one third of their spectrum, causing substantial unavoidable degradation in customer service (by the Government's own admission), their incentives for continuing to invest in 3G services might be significantly distorted. Moreover, Option 3 (again by the Government's own admission) would require the operators to invest in damage limitation (to compensate for the loss of spectrum) as opposed to more productive investment, such as continuing to develop new and innovative services for consumers. Clearly Option 1 would best encourage continued investment and innovation, whereas Option 3 would discourage it.

There is a broader point here too. Since the 3G licences were granted in 2001, the operators have spent huge amounts of money in making Hong Kong one of the most advanced, sophisticated and cheapest telecommunications markets in the world. To take away one third of the spectrum in these circumstances, with the resulting disruption to customer services, would be a proverbial "slap in the face" to both the mobile operators and their customers. It would effectively be penalising investment and innovation, not encouraging it.

Damage to Hong Kong's International Reputation

As noted above, Hong Kong has an international reputation for being one of the most advanced, sophisticated and cheapest telecommunications markets in the world. The result of causing such substantial damage to customer services, and incentives to investment and innovation, would be to damage this reputation. The damage would be exacerbated by the fact that the international trend is towards renewal of spectrum licences, in the absence (as in Hong Kong) of clear evidence of inefficient spectrum use or lack of competition. It would also be exacerbated by the Government's extortionate proposals on spectrum charging. Both of these matters are dealt with further below.

No Benefits Outweighing the Costs

2CP states that the Government's preferred Option 3 might increase competition, and might increase the efficient use of spectrum. But it admits that the Hong Kong market is intensely competitive, and that intense competition drives the efficient use of spectrum. So any such benefits are entirely speculative, and probably non-existent. If anything the Government's proposal risks distorting and lessening competition, by pushing up the costs of the existing 3G network operators, costs which may result in higher prices for consumers. Moreover, fragmenting spectrum allocation in the way the Government is proposing could lead to less efficient use of spectrum. There is certainly no evidence of any benefits which would be anywhere close to offsetting the hugely damaging effects of the Government's proposal, as set out above.

Legitimate Expectation

Although the duration of the spectrum assignment is 15 years, the operators have had no reason to believe that they would not be extended, assuming they are using the spectrum efficiently and the market is competitive – particularly given the substantial disruption to customer service which would otherwise result. In connection with renewal of the 2G spectrum licences in 2004, the TA stated very clearly that the relevant factors in deciding whether to renew the licences were: efficient use of the spectrum; providing a stable investment environment; ensuring continuity of customer service; and providing a satisfactory service to customers with continuous investments and improvements. These are almost identical to the criteria which the Government has said will apply in this case. Applying these criteria in 2004/2005, only two of the 11 licences were not renewed: this was on the grounds that the spectrum had not, in the TA's view, been used efficiently.

In fact, even earlier, in June 1995, when the TA allocated spectrum on a temporary basis for the analogue to digital migration, such temporary allocation was justified by the TA on the grounds that consumers would otherwise suffer capacity constraints, higher prices and worsening quality of service: exactly the same considerations which should justify the renewal of the spectrum assignments in this case. The Government's plan to take back one third of spectrum in this case contradicts these previous policy statements. It also contradicts the legal obligation that has been placed on the operators in their licences to "provide a good, efficient and continuous service" at all times. How can they do so when the Government itself has acknowledged that its proposal will cause unavoidable substantial customer disruption?

The operators had every reason to believe that similar considerations to those taken into account in 1995 and 2004 would apply in this case: indeed the two consultation papers confirm that the decision-making criteria are largely the same. As HTCL has previously submitted, all of the four decision-making criteria in the Consultation Papers justify renewal in this case. Vast amounts of funds have been invested by the operators in their networks and services since the licences were issued in 2001 and since the TA's statement in 2004.

Contrary to this expectation, the Government, in proposing to withdraw and re-auction one third of the spectrum, has not only irrationally drawn the wrong conclusion from applying its own decision-making criteria, as set out above and in our response to the First Consultation Paper. It also appears to have added a new criterion: namely maximizing the revenue it can generate from the operators. There is no other conclusion that can reasonably be drawn from its repeated references to using a "market-based approach" when there are competing demands for spectrum, or from the extortionate charges it is proposing for the retained two thirds spectrum (see below).

The Government seeks to rely on the 2007 Radio Spectrum Policy Framework to justify its approach in this case. However, that document does not do so:

1. The definition of "market-based approach" in the document is "methods relying on market forces to ensure the efficient use of spectrum has a public resource". In this case, the Government has acknowledged that market forces, i.e. the keen competition

which exists in the market, is driving the efficient use of spectrum, and has produced no evidence to show that this is not the case.

2. There is nothing in the document to suggest that "market-based approach" means that re-auctioning all or part of the spectrum will be the norm when spectrum licences expire, as the Government now seems to be suggesting. This is especially the case when the market is intensely competitive, as the Government admits it is, and spectrum is being used efficiently, as is the case in Hong Kong.

3. The Government relies on its statement in the document that "there is no legitimate expectation that there will be any right of renewal or right of first refusal of any licence or spectrum assignment upon the expiry of a licence or spectrum assignment under the TO". But it goes on to say that the decision whether to renew the assignment will be made "after taking into account the spectrum policy objectives set out in paragraph 2 of this document as well as all other relevant factors, including but not limited to any other public considerations". In other words, licences are not automatically renewed, and there is a re-appraisal against various criteria. The key factors in paragraph 2 in this case relate to efficiency, and there is nothing to suggest that spectrum could be removed if spectrum is being used efficiently and the market is intensely competitive, as in the case of Hong Kong. As regards the other criteria, the operators had every reason to believe that these would be similar to the criteria used by the TA in 1995 and 2004.

4. Paragraph 4.4 of the document indicates that a proper cost/benefit analysis will be carried out before any decision is taken. As noted above, while the Government has make an attempt to assess the cost in terms of customer service disruption of the operators losing one third of their spectrum under its preferred Option 3, it has failed to attempt properly to access any alleged benefits of Option 3 or how and why any alleged benefits outweigh the costs.

Moreover, recent international experience confirms that the general trend is towards renewal of licences where spectrum is being used efficiently and the market is working well, as is the case in Hong Kong, given the importance of ensuring continuity of services for customers and a stable investment environment. On this basis licences have recently been renewed (for example) in the UK, Australia, New Zealand, Portugal, Spain and Italy. An expert group of economists, Competition Economists Group, produced a report in 2012 which recommended that there should be a presumption in favour of licence renewal "to encourage long-term investment and minimise the risk of service disruption to customers"[2].

<u>Breach of the Government and Communications Authority's Legal Duties</u>

Under section 4(4) of the Communications Authority Ordinance, the CA is under a duty to exercise its functions taking account of the following matters:

(a) the fostering of an environment that supports a vibrant communications sector to enhance Hong Kong's position as a communications hub in the region;
(b) the encouragement of innovation and investment in the communications market;

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[2] "Licensing to support the Mobile Broadband Revolution", May 2012, p42

(c) the promotion of competition and adoption of best practices in the communications market for the benefit of the industry and consumers; and
(d) acting in a manner consistent with the provisions of the Hong Kong Bill of Rights Ordinance (Cap 383).

Renewal of the spectrum assignments in this case would satisfy the above criteria; re-auctioning one third of the spectrum would not. In particular, as set out above, re-auctioning would not foster a vibrant communications sector, it would damage Hong Kong's position as a regional communications hub, it would discourage innovation and investment, and it would not promote competition for the benefit of the industry or consumers. Moreover, by discouraging investment and innovation, it would be inconsistent with Article 118 of the Basic Law, contrary to the Government's assertion.

Spectrum Charging

According to Plum Consulting, the Government's spectrum charging proposals are grossly excessive – about four times the charges under relevant international benchmarks – and are likely ultimately to lead to higher prices for customers. According to the Plum Report, the basis for the Government's calculation is also seriously flawed. So, under the Government's proposed option, customers will not only suffer poorer service, they will also face the prospect of higher prices. We would urge the Government to take the Plum Report into account, and propose more reasonable charging arrangements.

In the absence of such proposals, there is little point in responding to the detailed questions in 2CP regarding spectrum charging.

Hutchison Telephone Company Limited
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