



**The submissions of
Hong Kong CSL Limited and New World PCS Limited
in response to the “Consultation paper on Proposed Spectrum Policy
Framework” released on 25 October 2006
by the Communications and Technology Branch of the Commerce,
Industry and Technology Bureau**

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1 **Submission**

Hong Kong CSL Limited and New World PCS Limited (collectively, “CSL”) are pleased to provide comments in response to the Consultation Paper. We set out below, in section 2, a summary of our overriding observations and comments. In section 3, we provide comments on the specific questions posed in the Consultation Paper.

2 **CSL’s overriding observations and comments**

2.1 **Part of a series of consultations**

The Spectrum Policy Consultation is one of a number of very significant spectrum related consultations or studies ongoing and/or proposed in Hong Kong.

Currently, there are a number of Government consultations relating to spectrum including the 850MHz Consultation , the Broadband Wireless Access Consultation and the Mobile Television Consultation. CSL understands or expects that further consultation will also be undertaken with regard to other aspects of spectrum management, including licence-exempt spectrum use and potential protections, spectrum trading and associated implementation, and spectrum liberalisation.

The Spectrum Policy Consultation is inextricably linked to all of these additional consultations and cannot take place, nor can CSL’s responses contained herein be construed, in isolation. Consequently, the responses provided below represent CSL’s submissions on the issues raised in the Consultation Paper and do not purport to be a full or final submission on the myriad of spectrum related issues that are yet to be fully consulted upon.

CSL is of the view that the contemplation of any further release of spectrum (for example, as proposed in the 850MHz Consultation and the Broadband Wireless Access Consultation) must be postponed until the more fundamental structural considerations for spectrum management provided for in the Consultation Paper, and the Spectrum Policy itself, are appropriately resolved. As stated by CSL previously in its submission on the 850MHz Consultation, to do otherwise would create new problems which have to be addressed by the Spectrum Policy and would be inconsistent with a ‘policy first’ approach.

A failure to undertake all relevant consultations and/or studies will lead to an incomplete and inappropriate spectrum policy which would in turn negatively influence investment decisions, the legislative framework and ultimately the management of spectrum in Hong Kong.

2.2 Market mechanisms for spectrum management

CSL agrees with the recommendation of the Consultant, and in principle supports the CITB’s intention, to move from a “command and control” spectrum management regime to a “market-based” regime. Conceptually, we believe that market forces have a positive role to play in both determining the use of a particular band and in determining who should have the right to use that band. This is provided, of course, that appropriate structural reforms take place. We set out our views as to the extent and nature of these reforms throughout this submission.

We believe that a market-based approach will require the development and implementation of at least four key policy areas (and associated legislative instruments):

- introduction of secondary spectrum trading (being the ability for licensees to trade their spectrum);

- introduction of spectrum liberalisation (being the ability for users to change the technology used, network deployed and services offered using a block of spectrum);
- release of unused or re-farmed spectrum into the market (allowing maximum flexibility as to subsequent use); and
- spectrum taxation (including addressing issues of “if”, “when” and “how much”).

The Consultation Paper also identified a number of other market mechanisms relevant to a market-based regime including use of “auctions” to select assignees and “administrative incentive pricing”.

We agree there are “substantial implementation issues to be resolved”, as set out in Annex 6 of the Consultant’s Report, if a market-based approach is to be adopted and agree with the CITB to instil, as one of its guiding principles, the use of a market-based approach unless there are overriding policy reasons to do otherwise.

Unfortunately, we do not believe that the Consultation Paper reflects a genuine intention to move from a “command and control” regime to a “market-based” regime. Rather, it suggests the inclusion of possible measures that might make the “command and control” system of spectrum management more transparent.

Despite the significant analysis provided for in the Consultant’s Report, and the clear recommendations to liberalise Hong Kong’s spectrum management contained therein, the Consultation Paper parks both spectrum trading and spectrum liberalisation electing instead to consider the introduction of secondary spectrum trading in the “longer term future” and “monitor” spectrum liberalisation in other jurisdictions.

We believe that both secondary spectrum trading and liberalisation of spectrum use are critical aspects of the market-based approach. Consequently, if the guiding principle to move to a market-based approach is to be a legitimate aim in Hong Kong, spectrum trading and spectrum liberalisation must be comprehensively consulted upon now.

Until such time as these aspects are appropriately addressed, there will be significant uncertainty in the market, particularly as a piecemeal approach will lead to confusion about whether a genuine market-based approach is being adopted.

Other jurisdictions, in particular the USA, Europe, Australia and New Zealand, have already taken significant steps towards a more market-based approach.

We support the general approach adopted in the UK where both spectrum trading and spectrum liberalisation were the subject of extensive consultation as part of an assessment of overall spectrum policy. We therefore urge the CITB to reconsider its proposal to defer specific consultation on these issues and engage in meaningful consultation with industry now about the development and implementation of a comprehensive spectrum policy.

An important aspect of the market-based approach¹, and key to the successful implementation of spectrum liberalisation in particular, is a policy which supports technical and service neutrality wherever possible. We note the commitments to technical and service neutrality made by Chinese Vice Premier Wu Yi at the annual meeting of the US-China Joint Commission on Commerce and Trade in April 2006 and while we acknowledge that there may be a number of areas where technical and service neutrality is not appropriate (for example, with regards to law enforcement, emergency services and national security), we strongly

¹ As acknowledged by the Consultant in Recommendation 5.7 of the Consultant's Report.

recommend that the regime is otherwise neutral to the full extent possible. This will necessarily require an appropriate consideration of technology and service neutral spectrum usage for existing and future spectrum assignment, along with any limitations essential to maintain technical efficient spectrum management. To do otherwise would run contrary to the Government's guiding principle of the use of a market-based approach.

With respect to the issue of spectrum taxes, the Government has already set a competitive floor for such taxes when it devised the Reserve Prices. As a result, if and when the Government allocates spectrum that will be used for services are in direct competition with existing services it must use the Reserve Prices as a benchmark to ensure there is consistency in Government policy and a level playing field. Alternatively, the existing system could be reformed and Reserve Prices decreased to a level in line with future reserve prices for competing spectrum grants so as to ensure equal treatment between existing and new spectrum holders.

2.3 Spectrum policy objectives

The policy objectives (as set out on page 18 of the Consultation Paper) have apparently been designed to underpin the TA's future spectrum strategy and management arrangements (however we question whether this would be the role of the TA or Communications Authority – see section 2.6 below). We certainly agree with the Consultant that the absence of a stated spectrum policy creates confusion and that this may have a negative impact on investment decisions going forward.

We make the following general comments on the proposed policy objectives:

- We believe that the first two proposed objectives provide for three different, and not necessarily compatible, concepts: economic, technical and social efficiency. No guidance or definition of these concepts is

provided within the Consultation Paper (although we accept that economic and technical efficiency are generally understood). However, what constitutes “social efficiency” remains uncertain.

- With regards to “social efficiency”, we consider that social policy is or should be adequately provided for in the current universal service obligation arrangements and need not be an overriding policy consideration in the allocation and assignment of spectrum. If, contrary to this position, the CITB believes the concept of “social efficiency” is required, we would urge that the parameters of this concept be very clearly and exhaustively defined.
- Given that spectrum is essentially an economic input, we would expect that Hong Kong is best served if economic efficiency is espoused and prioritised within the policy objectives. Certainly, if Hong Kong is serious about liberalising spectrum management, the policy should prioritise “economic efficiency” over other considerations.
- We also believe that economic efficiency is likely to take account of harmonisation issues with mainland China. Somewhat contradictorily, paragraph 32 of the Consultation Paper notes that “*spectrum management decisions in Hong Kong would take into account the Mainland’s spectrum management decisions primarily on the ground that there is a need to coordinate spectrum use to prevent cross-boundary radio interference*” however paragraph 33 suggests there is a case “*for spectrum allocation and release decisions in Hong Kong to take into account the wider benefits that may be brought about through harmonisation with the Mainland’s use of spectrum for popular services*”. We appreciate the need for coordination with mainland China, particularly in relation to interference issues, but to artificially align Hong Kong policy to that on the mainland at the expense of global developments and trends could create unwelcome outcomes (especially given Hong Kong’s territorial size, its ubiquitous urban landscape and the unique considerations which accompany these characteristics). This issue is discussed further in section 2.5 below.

- Furthermore, if Hong Kong is to be genuinely considered “Asia’s World City” (the branding outcome of the Government initiated Brand Hong Kong programme), then, as correctly recognised by the CITB under paragraph 22 of Part 2 of the Consultation Paper, incentives to invest in innovative technologies and services are required. By “incentives” we are referring to a regime which permits an operator to reasonably recover the cost of an investment through its revenue returns (and not incentives that may provide an artificial/uneven playing field or distort free market principles). Given the importance of future investment in telecommunications to Hong Kong, CSL proposes that this concept should be specifically provided for within the policy objectives.

We set out a proposed set of revised policy objectives (which focus on economic efficiency and specifically include reference to investment incentives) in section 3.2 below.

2.4 Focus on mobile telecommunications

We note that the Consultation Paper focuses very much on mobile telecommunication operators, networks and services. We can only speculate why this might be the case, however firmly believe that further detail and analysis is required on how a spectrum policy will address key public services and the operations of utilities and private businesses. These were identified in some detail in the Consultant’s Report and include, inter alia:

- (a) broadcasting issues (including free-to-air television, the transition to digital TV broadcasting and radio broadcasting);
- (b) satellite services;
- (c) civil aviation and maritime users;
- (d) meteorological issues;
- (d) use by the emergency services;

- (e) point-to-point radio links;
- (f) public mobile radio and trunked radio;
- (g) fixed-wireless access (wireless local loop); and
- (h) the different types of radiocommunications equipment.

Although mobile telecommunications is an important consideration when assessing spectrum policy, it remains one of many industries affected by the spectrum policy and should not be solely focussed upon when devising spectrum policy.

The Spectrum Policy Consultation is meant to be addressing the highest level of macro-policy and the work being undertaken by CITB should have far reaching implications. We would hope that the CITB will generate an overriding policy position that will influence micro-policy reform and the legislative framework (potentially) for the next decade. It is absolutely critical, therefore, that the policy formulation is undertaken in a comprehensive and complete manner. The micro-level focus on mobile telecommunications is inappropriate and the failure to adequately and appropriately address the issues listed above are of great concern to CSL.

Consequently, it is apparent that further consideration is required in relation to the additional interested parties and all relevant interests and concerns need to be legitimately addressed. To do otherwise will result in an incomplete or half-baked spectrum policy that may only, at best, achieve some short-term aims.

2.5 International considerations

We believe the Consultation Paper fails to adequately address the balancing of considerations at play in Hong Kong. There are both international and domestic dimensions to radio frequency planning in Hong Kong.

Hong Kong's Spectrum Policy should reflect its international regulatory commitments, international spectrum related developments (generally) as well as more regional considerations (such as those of mainland China). CSL would caution against an emphasis on any particular part of the world. Clearly, Hong Kong cannot act wholly unilaterally; it must and should consider decisions of other countries and regions but it is important to understand why this is the case.

We note, in particular, the following:

- The use of spectrum is coordinated internationally through the Radio Regulations annexed to the Convention of the ITU, as revised and updated through the International Telecommunications Union (“**ITU**”) World Radiocommunications Conferences (“**WRC**”). These conferences provide an opportunity for countries to influence the allocation of spectrum internationally. Conversely, decisions taken in this forum affect the allocation of spectrum domestically in Hong Kong.
- The Consultant's Report refers to international bodies such as the ITU and the WRC on a number of occasions. However, it does not explicitly emphasise the international influences at play in Hong Kong, or the impact of the WRC on fundamental spectrum allocation decisions. The Consultation Paper itself refers to ITU obligations and the interplay between ITU policy and domestic Hong Kong spectrum management in Part I, Paragraph 10 when it states that the TA plans spectrum allocation “in accordance with the rules and regulations of the ITU, decides the specific use for each band of spectrum and, through coordinating with neighbouring regions, prevents cross-border interference”. However, no further mention is made and the Consultation Paper fails to refer at all to the impact of the WRC on Hong Kong's spectrum policy.
- Although consideration of mainland China issues is an important factor in Hong Kong's Spectrum Policy, of equal importance (if not more, given the branding of Hong Kong as “Asia's World City”) are Hong

Kong's regional and international commitments, including those of the Asia-Pacific Telecommunity, ITU-R regulations, future WRC conferences and international developments generally. Future WRC will certainly consider allocations to mobile services (for example, WRC-07 Agenda Item 1.4 - to consider frequency related matters for the future development of IMT-2000 and systems beyond IMT-2000).

- Given the sheer size of mainland China and also attendant issues of frequency coordination, it may be the case that, on occasion, the best interests of Hong Kong will mirror those of mainland China and that Hong Kong residents will benefit from resultant economies. But there should not be a presumption to that effect. Instead, CSL would suggest that all spectrum decisions should focus on maximising the economic value of spectrum in Hong Kong and, on a case-by-case basis, evaluating what is in the best interests of Hong Kong. It is unhelpful to single out any country or region - as is done in the draft spectrum policy objectives at paragraph 31(d) - because this may lead to inefficient outcomes.

For a discussion on the differing international influences on spectrum planning and management in addition to that in the Consultant's Report, we refer the CITB to the Productivity Commission Report. This may provide helpful information to assist in understanding and appreciating the significance of the various global influences.

2.6 Regulator convergence issues not addressed

In March 2006, the Government consulted the public on the proposal to establish a unified (converged) regulator, the Communications Authority ("CA"). It is envisaged that this regulator will replace the TA and the Broadcasting Authority.

We understand that the Secretary for Commerce, Industry and Technology, Mr Joseph Wong, has endorsed an approach which would expedite the establishment of the CA. He stated in the Legislative Council on 17 January 2007:

“We are now working out the specific details for the new legislation, with a view to introducing a bill to the Legislative Council within the current legislative session”.

The creation of a converged regulator, and the ramifications this may have on spectrum policy, is highly significant. Neither the Consultation Paper nor the Consultant’s Report deals with the implications this will have on spectrum management in Hong Kong. Further consideration is therefore required as to the precise role of the CA and its impact on high level spectrum policy issues. In particular, the requirement to focus equally on both telecommunications and broadcasting radio frequency issues and consider the impact of the convergence of telecommunications and broadcasting services.

2.7 Spectrum efficiency issues

We believe there are a number of more general spectrum efficiency issues that have not been adequately addressed in the Consultation Paper. In particular, we note:

- The Consultation Paper discusses the use of auctions as a mechanism for assigning spectrum. We believe that auctions are a practical mechanism for assigning spectrum provided that they are structured appropriately. The Consultation Paper does not discuss the complex issues surrounding the design of auctions (including reserve pricing) and the partitioning of spectrum into packages that can be assessed by potential bidders.
- We consider that all future initial spectrum allocations would benefit from a “use-it-or-lose-it” condition provided definitive guidelines detailing the circumstances in which this condition may be exercised are

set out. We consider that these guidelines should include the following concepts:

- allowing a reasonable window of opportunity for initial network planning and deployment, depending on the specific circumstances and technology in question – for example 3 to 5 years;
- licensees should become subject to the “use-it-or-lose-it” provision only where: a) they are unable to demonstrate genuine usage of the spectrum, such as failure to roll out or take steps to acquire infrastructure to support provision of services using the frequency AND b) another party can present a genuine alternative proposal, including a rigorous business plan, for usage of the spectrum, as well as sufficient resources, capability and commitment to achieve that plan; and
- in the event that a licensee loses assigned spectrum under these provisions, that licensee should reasonably expect to be reimbursed an amount equal to the unused portion of a straight-line depreciated value of original acquisition price. This reimbursement could come out of the acquisition fee paid by the new licensee taking up that spectrum.
- To be consistent with the policy of spectrum trading, liberalisation and technological-neutrality, the CITB should have regard to the packaging of spectrum into tradable lots. Efficiency in spectrum allocation can be achieved by permitting the exchange/swap (or reallocation) of spectrum between licensees. However, where no technical advantages exist for use of spectrum at different frequencies within a specific band, we would suggest that maximum efficiency can be achieved through a “notional” or “generic” allocation model (like that used for the allocation of spectrum for 2G and Local Multipoint Distribution Systems in Singapore). This model permits spectrum to be efficiently allocated to a number of licensees as part of the auction process without unnecessary fragmentation within the frequency bands. At the conclusion of the

auction process, generic lots can be combined by the TA (or CA) prior to assignment to ensure contiguous allocation of spectrum, minimising the need for guard bands. We note, the creation of generic lots also supports the tradability of spectrum and facilitates swaps to ensure the most efficient use of the spectrum within the market.

- Currently in Hong Kong, frequency assignment for those providing a public communications service is bundled with a carrier licence. We do not believe that a single licence covering both frequency assignment and a right to offer a public communications service is appropriate for a market-based approach. We agree with the analysis of the Consultant (section 4.6 of the Consultant's Report) and endorse the Consultant's recommendation (see Recommendation 4.11) that radio frequency licences should be separate from service/network licences. This is the case in the EU, Australia, Canada and New Zealand (to name but a few jurisdictions). Accordingly, we recommend that (a) future spectrum assignments are made independently of the service/network licences and (b) existing carrier licences be amended, as a priority, to create a separate spectrum licence.

2.8 Concerns about aspects of the Consultation Paper

There are a number of inconsistencies and/or discrepancies within the Consultation Paper we would like to note. In particular:

- In paragraph 15, the suggestion that the ability to obtain spectrum is a “de facto barrier” to entry into the mobile telecommunications market is misleading in the Hong Kong context. Licensed mobile virtual network operators and resellers already provide 2G mobile services without specific spectrum grants² and the open network access obligations in the

² In fact the TA specifically recognised the competitive constraints imposed by mobile virtual network operators on mobile carriers in his decision granting consent under the TO to joint ownership of Hong Kong CSL Limited and New World PCS Limited dated 22 March 2006 (see paragraph 8.23).

3G mobile carrier licences are designed to facilitate service level entry into the 3G mobile telecommunications arena.

- We note the reference in paragraph 21 to the UK, Australia and New Zealand (and the fact these countries may face less potential interference problems than other jurisdictions). We acknowledge that the relevance of other countries' experience is always tempered by differences in the regulatory and market context, however, it would be wrong to suggest that much cannot be learnt from these particular countries. These countries still undertake international coordination to prevent interference and we would suggest that their geographical characteristics (and the resultant spectrum management issues) are more relevant to Hong Kong than those faced in continental Europe.
- We question the relevance of the reference to the 1998 UMTS Decision in Europe (in paragraph 25 of the Consultation Paper). We understand that the USA actually challenged the legality of this particular decision at the WTO and it was subsequently withdrawn. We also query the relevance of a 1998 decision in today's radiocommunications context.
- The reference in paragraph 45 to Australian "apparatus licences" and the purported relevance of the recommendations of the Productivity Commission Report represent a misunderstanding of the Australian regime. Given the focus of the Consultation Paper on spectrum, an analysis of the Australian experiences with its spectrum licences would be more appropriate.

3 Addressing the specific questions

3.1 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?

CSL agrees that, inter alia, the factors outlined in Part 2 of the Consultation Paper, and the detailed discussion of these factors in the Consultant's Report, should be factored into Hong Kong's spectrum policy framework and spectrum management arrangements.

CSL considers it essential that the CITB takes into account the topics discussed under section 2 of this submission (and the specific responses set out below) in preparing any spectrum management policy or framework for Hong Kong.

3.2 Spectrum policy objectives

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.

We make reference to the general comments on the spectrum policy objectives set out in section 2.3 above. We agree with some of the proposed objectives, however we note:

- there is uncertainty around the concepts of “economic efficiency”, “technical efficiency” and “social efficiency” (in particular the latter). These concepts will need further clarification;
- “economic efficiency” should be espoused and prioritised within the policy objectives; and
- incentivising investment in new technologies and services should be a specific policy objective.

We set out below a proposed set of policy objectives encapsulating the issues raised immediately above and in section 2.3:

Proposed Spectrum Policy Objectives

(a) to facilitate the most economically efficient use of spectrum with a view to attaining maximum benefit for the community;

(b) subject to the objective of economic efficiency, to achieve technically efficient use of spectrum;

(c) to provide appropriate incentives to industry investment in future technologies and services by facilitating an open, transparent, objective and non-discriminatory regulatory framework and decision making process;

(d) to fulfil Hong Kong's regional and international obligations relating to the use of spectrum. Hong Kong will always give primacy to (a) and (b) in its consideration of all regional and international obligations; and

(e) to ensure that necessary spectrum is reserved for government services and that such spectrum is used in a manner consistent with (a) and (b).

If, contrary to our recommendation, the CITB believes the concept of “social efficiency” is required, we would urge that the parameters of this concept be very

clearly and exhaustively defined. We believe the aim of any “social efficiency” objective should focus on law enforcement, emergency services and national security.

3.3 Guiding principles in spectrum management

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

As discussed in the opening sections of this submission, CSL agrees in principle that Hong Kong should adopt a market-based approach to spectrum management in order to achieve economically and technically efficient use of spectrum. We reiterate our previous comments that Hong Kong should embrace a full market-based approach, inclusive of secondary spectrum trading and spectrum liberalisation in order to allow market forces to deliver the efficiency gains desired by the Government and the industry.

CSL supports the Government’s suggestion to introduce a published guiding principle for spectrum management by the TA. We consider that in order to establish the discipline sought by the Government in decision making by the TA in relation to both assignment and reassignment/re-farming of spectrum, this guiding principle should go further than that proposed in the Consultation Paper. We propose that the guiding principle should be that a true market-based approach will be adopted by the TA in all aspects of spectrum management (whether there are competing demands or not) unless there are compelling overriding public policy reasons for the TA to deviate.

With regards to what the “public policy” reasons for intervention should be, these need to be fully transparent and set out *ex-ante* in an exhaustive list. We believe

these “public policy” reasons should be limited to law enforcement, emergency services, national security and compliance with international obligations.

CSL also strongly supports the principle of transparency in regulation and the Government’s suggestion for this to apply explicitly to the decision making process in relation to spectrum management. In order to achieve this aim, the decision making process should include the opportunity for meaningful industry participation, by way of consultation, in that decision making process and publication of the TA’s reasons for any decision to depart from a market-based approach.

3.4 Spectrum rights before expiry of assignment

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?

Licensees commit significant investment in securing spectrum assignment and developing infrastructure to support commercial services using that spectrum on the assumption of long term returns on that investment. Such licensees should be entitled to certainty of rights in that spectrum during, and up to the end of, the assignment period.

As discussed in the Consultation Paper and the Consultant’s Report, variation or withdrawal of spectrum allocation prior to expiry of the assignment can have significant impacts on licensees and the market. Moreover, uncertainty over rights to spectrum contradicts the stated policy objectives of facilitating economic and technical efficiency, and maximising the benefit for the community, as well as the guiding principle of a market-based approach to spectrum allocation.

The prospect of variation or withdrawal of a spectrum assignment can result in detrimental affects on the quality and types of services offered to consumers as uncertainty can dictate choice of investment options or ultimately inhibit capital investment in new or improved infrastructure or services and thereby stifle or slow roll-out of innovative services or lead to a deterioration in the quality of existing services.

Accordingly, CSL agrees with the Consultant that the TA should not vary or withdraw spectrum assigned prior to the expiry of the spectrum assignment except in extremely exceptional circumstances.

CSL notes the grounds for the TA having the right to take action proposed in paragraph 41 of the Consultation Paper (being “public interest, or government policies, and international obligations so require, or where interference between legitimate spectrum users, render it necessary”). These concepts are completely unclear and what constitutes “public interest” and “government policy”, in particular, must be carefully considered. Given the lack of clarity with the existing proposal, it is difficult to agree with it, however we believe further consultation with more precision about what extreme circumstances should justify withdrawal or variation would be helpful. Once an appropriate and definitive intervention policy has been finalised, we believe this should be codified under the TO by the amendment of section 32H(3) and (4).

Furthermore, we strongly believe that prior to the exercise of any rights to vary or withdraw spectrum for any ground, the TA should be required to conduct a transparent, quantitative cost benefit analysis of the impacts of the decision and consider all viable alternatives. This analysis must take into account the costs to both licensees and consumers who would be affected by the withdrawal or variation. This process should also involve a period of consultation with the industry, and specifically affected parties, as these parties will often be best placed

to determine the likely costs and benefits, as well as possible alternatives. Prior to an examination about the appropriate minimum notice periods, the Government must first fully articulate what constitutes the circumstances when spectrum can be varied or withdrawn. It is difficult to assess an appropriate notice period without understanding the circumstances when variation or withdrawal may be appropriate.

3.5 Spectrum rights at the end of assignment

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?

CSL agrees with the economic benefits of renewable spectrum assignments outlined under paragraph 43 of Part 3 of the Consultation Paper and discussed in detail in the Consultant's Report. As mentioned above, licensees commit significant capital in securing spectrum assignment and rolling out infrastructure. Such licensees should be entitled to certainty of rights post spectrum assignment to justify that investment both during, and up to the end of the assignment period.

Consistent with our comments above in section 3.4 ("Spectrum Rights before expiry of assignment"), uncertainty leading up to, and at the end of, the expiry of an assignment can have significant impacts on licensee and market behaviour. The lack of expectation for renewal will act as a disincentive to capital investment in the later years of a spectrum assignment. This risk is likely to be more prominent when coupled with other factors, including declining or static user base of legacy services provided via spectrum, or where equipment used by the licensee is also reaching the end of its economic or useful life, and thus the licensee faces the choice as to whether to upgrade the equipment or to continue providing services with outdated infrastructure. In addition to the choice to invest in later years, as argued by the Productivity Commission (pages 295 - 296 of the Productivity Commission Report) in support of security of tenure and long term or perpetual

spectrum licences, uncertainty of future rights can dictate initial investment options. Where renewal is not certain, licensees are likely to choose infrastructure investments that provide shorter term returns within assignment periods over those that will ultimately provide better services to end users but longer term returns to licensees.

In light of the impact on industry and consumers, as well as the economic benefits outlined in the Consultation Paper and the Consultant's Report, we consider that Hong Kong should adopt a policy which provides a sufficient level of certainty to licensees that spectrum assignment will be renewed. We propose that this certainty take the form of automatic renewal of spectrum assignments unless there are significant justifications for non-renewal. Such justifications could include (a) systemic or recurrent breach of licence conditions by a licensee, (b) the need to use spectrum for matters of national security, law enforcement or national security, (c) persistent non-use of assigned spectrum by the licensee; or (d) licensee request or insolvency. Furthermore, we believe that any such justifications should be codified in the TO and the TA should be required to perform a quantitative cost benefit analysis prior to making the decision to refuse to renew, affording consultation with the affected licensee.

We believe automatic rights of renewal remain consistent with a market based spectrum policy. In fact, given that licence expiry dates exist in Hong Kong for spectrum allocation reasons, it is arguable that if spectrum was fully liberalised, the market would dynamically reallocate spectrum to an alternative, more economically efficient, use.

CSL recognises the fact that the concept of automatic renewal, along with the particulars of how it would operate, will require further consideration by the Government and consultation with the industry.

If automatic renewal is not considered a viable option, CSL would support a “right of first refusal” as an alternative.

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?

CSL considers that sufficiently lengthy notice periods should apply to give licensees certainty in relation to future business and infrastructure planning. We agree that this principle should apply wherever there is, or is likely to be, substantial investment in underlying infrastructure, regardless of the term of the relevant spectrum assignment.

CSL refers CITB to the recommendations of the Productivity Commission (pages 295-298 of the Productivity Commission Report) in Australia for the adoption in Australia of perpetual spectrum licences to promote certainty and secondary trading. CSL agrees with the Productivity Commission’s argument that liberalisation of spectrum licences in Australia has the effect of removing the risk that spectrum will be locked in over time to a particular use, and that the market will dynamically reassign spectrum to the most efficient use.

3.6 Spectrum reformatting

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

We reiterate the point raised in both sections 3.4 and 3.5 above that certainty for licensees during the assignment period is critical and that reallocation in any form should only take place where essential for the efficient management of the

spectrum. Furthermore, any refarming must only be undertaken on the understanding that (a) the reallocation is appropriate for the particular licensee (providing minimal disruption) and (b) the licensee will be appropriately compensated.

We support the proposal that the TA should be required to undertake impact appraisals before initiating spectrum refarming. CSL considers it imperative that such appraisal involve:

- both a qualitative and quantitative cost benefits analysis of refarming versus alternative methods of providing new services. CSL is keen to ensure that any analysis conducted by the TA will include all alternatives, including new methods of technology for spectrum sharing, as well as not providing the new service;
- consideration of international best practice and international standards in relation to the relevant frequency band; and
- a meaningful consultation with the industry and all affected licensees.

Where the refarming exercise is likely to have an adverse impact on the commercial operations of any licensee, particularly where the refarming activity is to apply to spectrum subject to a long duration licence, such licensee should be given sufficient advance notice of the TA's intention to consider refarming of the spectrum, so that the licensee can appropriately plan its future operations.

In addition, CSL supports the concept of reimbursing relocation costs of a licensee from proceeds of any auction conducted for new use of the relevant frequency (as briefly outlined in the Consultant's Report (page 82-83)). Any such reimbursement could be taken into account in the cost benefit analysis conducted by the TA.

As an overriding comment, we believe that a fully liberalised regime would permit the dynamic reallocation of spectrum to the most efficient use and thereby remove the need for Government or regulators to consider reallocation exercises, such as refarming, at all.

3.7 Spectrum rights for non-licensees

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?

All issues impacting spectrum management need to be open to public debate and considered in detail in order for a comprehensive policy framework to be developed for the future of spectrum in Hong Kong. This includes any proposal for licence-exempt spectrum use and the rights of such users.

We believe that this is one of a number of significant spectrum policy issues that remains unaddressed at this juncture. We recommend that consultation takes place on this issue (and the wider implications of licence-exempt spectrum usage) as part of the series of spectrum policy related consultations. We see no purpose in further delaying consideration of these issues.

3.8 Spectrum release plan

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 these plans?

CSL supports the proposal to publish and annually update a 3 year rolling spectrum release plan in order to provide transparency in future supply of spectrum and information on spectrum management generally. We note, the Australian Communications and Media Authority (“ACMA”) produced a similar document (entitled “*From DC to daylight-accounting for use of the spectrum in Australia*”), detailing what the radiofrequency spectrum is used for, where demand is growing, and what strategies the ACMA intends to employ for ensuring fair and equitable access.

CSL considers that this release plan should not be limited to spectrum to be released through market-based competitive bidding, but also contain the TA’s plans in relation to all spectrum in order that the industry may be informed of spectrum policy in a holistic manner. Consistent with international best practice, including the “Australian Radiofrequency Spectrum Plan”, we believe the spectrum release plan should serve the following functions:

- reflect Hong Kong’s international obligations and provide details of agreed international frequency allocations;
- provide the industry with an understanding of Hong Kong’s spectrum management and strategy, including any frequency bands that are likely to come under consideration by the TA for assignment or re-farming in the 3 year period and be the subject of industry consultation;
- inform operators and the public about the services that can be operated in a given frequency band (if necessary) and any conditions attached to their operation, including whether these are tradable/liberalised or technology/service specific and reasons for such conditions;
- inform operators and the public about what frequencies are or may become available for release, the timing of any release and the method of release; and
- inform the industry as to the next consultation period for issues in relation to the release plan or specific frequency bands.

Further, at the same time as issuing the annual 3 year rolling spectrum release plan, the TA should publish a comprehensive report that sets out the spectrum allocations in all frequency bands including the identities of the entities or Government agencies holding spectrum allocations.

3.9 Secondary trading of spectrum

Do you agree that the introduction of secondary trading of spectrum in Hong Kong can improve the efficient use of spectrum?

We refer you to our general comments in section 2.2 above.

In general, CSL agrees with the recommendation of the Consultant (Recommendation 5.5 of the Consultant’s Report) to introduce spectrum trading in Hong Kong. We believe that secondary trading is a critical aspect of a market-based regime and we understand that significant steps have been taken towards a more market-based approach in a number of other countries (including the USA, UK, Australia and New Zealand).

We find it somewhat curious that the CITB sets out and endorses the case for introducing spectrum trading (see paragraphs 57 – 62), but then proposes that “consideration should be given to introducing secondary trading of spectrum in the longer term future”. We do not support the proposal to delay the introduction of spectrum trading and consequently we believe that all feasibility studies and relevant consultations should be undertaken without further delay.

Consultation on this issue should include, inter alia, (a) consideration of what actually constitutes secondary trading (i.e. whether one can transfer, aggregate, subdivide and/or lease) for the purposes of Hong Kong spectrum management, (b) the extent to which the use of spectrum can change upon trading and (c) the

implementation issues (as specifically identified in the Consultant's Report). We draw your attention to the Australian experience, where secondary markets for spectrum involve both spectrum trading and spectrum leasing activities. Under that regime, spectrum trading is considered assignment of part or all of a licence to another party, as distinct from spectrum leasing activities which involve allowing other entities to operate devices or use spectrum under a licence.

Although it has been noted in the Consultant's Report, and other studies, that there has not been a significant utilisation of secondary trading in many jurisdictions, its potential is clearly recognised. The Consultant's Report also notes that a number of factors have influenced the take up of secondary trading in jurisdictions, including transaction costs such as taxes and duties, and availability of substitutable spectrum. CSL considers that many of these factors are jurisdiction specific, and that Hong Kong is well placed to consider these international examples as part of a consultative process and develop a successful trading regime tailored for the Hong Kong market.

In order to support secondary trading, CSL considers that any Spectrum Policy should address the spectrum efficiency issues identified above in section 2.7, particularly the decoupling of spectrum licences from licences and the promotion of tradable lots in initial spectrum assignment. We strongly believe that even if the CITB does not adopt secondary trading at this point, the issues raised in section 2.7 should be addressed in the Spectrum Policy now.

As an aside, we agree with the position set out in paragraph 60 of the Consultation Paper that the TA should not take back the spectrum for re-assignment by market mechanisms. We concur that secondary trading of spectrum (coupled with "use-it-or-lose-it" obligations, discussed further below) provide a more appropriate and effective means of encouraging efficient spectrum utilisation.

How should potential anti-competitive behaviour in the spectrum market be addressed?

There are a number of competition safeguards already contained within the TO. In particular, we refer to sections 7K, 7L and 7N (which prohibit abuse of dominance/discrimination by dominant operators as well as anticompetitive behaviour by licensees generally) and section 7P (which deals with mergers/acquisitions where they have an effect of substantially lessening competition). These protections are similar to those afforded in Australia where, under the Radiocommunications Act 1992, the issue of certain spectrum related licences is treated as the acquisition of an asset for the purposes of the Australian Trade Practices Act (thereby subject to the prohibition of acquisitions that would result in a substantial lessening of competition in the relevant market).

We believe that these existing protections are sufficient to address any anticompetitive behaviour in the spectrum market, provided all holders of spectrum are licensees under the TO and therefore subject to the existing provisions. Should there be any entities holding and using spectrum for commercial purposes and who are not licensees under the TO then this should be rectified as spectrum holders should be obliged to comply with the TO and regulated by the TA.

How should gains in spectrum trading be treated?

We concur with the Consultant's position that trading efficiency considerations should take precedence and therefore trading gains should not be taxed specifically.

What are your views on other implementation issues identified by the consultant?

We agree that there are a number of implementation issues to be resolved (including those set out in Annex 6 of the Consultation Paper) if a market-based approach is to be adopted (and in particular, if spectrum trading is to be introduced). We do not, however, consider these to be an impediment to a full consultation on spectrum trading and the introduction of spectrum trading at this juncture.

We anticipate that further consultation will be required on this issue, but provide our preliminary comments to the Consultant's "implementation issues" below as requested. We reserve the right to comment further once an appropriate feasibility study has been completed and the relevant consultation initiated.

Nature of licences

We refer to our discussion of spectrum efficiency issues, including those specifically relating to initial assignment of spectrum and the framework for spectrum licensing in section 2.7 (Spectrum efficiency issues) above.

We agree with the Consultant that spectrum licences should be a distinct and separate form of licence. We believe, in order to enhance the prospect of tradability (and promote spectrum liberalisation generally) that the current spectrum aspects of the carrier licences should be separated into an independent "spectrum licence".

In addition, as stated in section 2.7 (Spectrum efficiency issues) above, appropriate steps to introduce technology and service neutrality in licensing must be taken, recognising that some technical constraints may be considered necessary

for some frequency bands to avoid interference between users. Such issues should form part of a larger consultation on the issue of secondary trading.

Scope of spectrum rights (should scope change if tradable)

We agree with the Consultant that the scope of spectrum rights need not change with the move to tradable licences.

Licence duration and renewal

We agree with the Consultant that spectrum trading is likely to be promoted by long duration licences or licences with automatic rights of renewal. We also support the suggestion that annual licences should be replaced with licences of a sufficient duration to support investment certainty.

We believe the existing 2G and 3G licences are of a significant enough duration to promote spectrum trading.

Although there is no automatic right of renewal contained within the existing licences, we believe this protection should be introduced to give existing licence holders confidence of renewal upon expiry, subject to certain limited exceptions, to both (a) promote the effective trading of spectrum and (b) give existing licence holders confidence to continue investment. This is discussed further in section 3.5 above.

Availability of information on spectrum use

We support the use of an official, publicly available register of licences to facilitate trading.

Spectrum hold out and spectrum hoarding

We believe that the combined effect of a “use-it-or-lose-it” condition for any future licences issued (with the characteristics outlined in section 2.7 above) and the financial incentive offered by spectrum trading will provide strong incentives not to unnecessarily or unfairly hoard, or hold out on, spectrum.

We firmly believe that any “use-it-or-lose-it” regime should be applicable for licences issued going forward only. We do not support the introduction of a “use-it-or-lose-it” condition on licences that have already been issued.

Ex-ante approval of trades

We agree with the Consultant that ex-ante approval should only be applicable if the purchase raises competition issues (i.e. substantial lessening of competition).

Interference management

We agree with the Consultant that interference disputes (between trading partners) should be dealt with between the licensees in the first instance and that recourse to the regulator should be a last resort.

Additional competition safeguards

We believe that basic competition principles coupled with “use-it-or-lose-it” type conditions would provide adequate protections against anti-competitive behaviour. We believe it is unnecessary (and potentially distortive) to have ex-ante spectrum caps. We note that some jurisdictions, including the US, dispensed with spectrum caps as an inefficient and unjustifiable constraint on fair competition.

3.10 Spectrum liberalisation

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

We refer you to our general comments in sections 2.2 and 2.7 above.

In principle, our views of spectrum liberalisation are consistent with the general principles set out in section 3.9 above (Spectrum Trading). We believe that spectrum liberalisation is an important part of a “market-based” regime and that any further consultation on the issue should not be delayed. We consider that delay will engender uncertainty in the market as to Hong Kong’s commitment to move away from the “command and control” regime and undermine the fundamental guiding principles set out in the Consultation Paper (of transparency and use of a market-based approach unless there are overriding policy reasons to do otherwise).

We concur with Ofcom’s view (set out in its 2005 Spectrum Framework Review Consultation document) that spectrum liberalisation will deliver benefits to consumers by allowing the use of spectrum to be changed more quickly to the applications that are most valuable and that spectrum liberalisation complements the introduction of spectrum trading.

We believe that spectrum liberalisation achieves the very valuable goal of allocative efficiency. That is, where spectrum can be used for different purposes, it will be used for the most economically efficient purpose (of course, certain necessary constraints on spectrum use for interference protection or compliance with international obligations aside). The Consultation Paper tends to ignore allocative efficiency, except to the extent it states that Government will adduce the best use (subject to economic, technical and social efficiency).

We refer the CITB to the success of spectrum liberalisation in other jurisdictions. For example, in Australia, mobile telephony operators have been able to take advantage of liberalisation principles of technological and service neutral licensing by converting their use of spectrum for outdated networks to newer, more technically and economically efficient networks offering better quality of service to end-users, without the need for regulatory intervention (eg. Telstra Corporation Limited's conversion of its 850MHz spectrum across Australia from CDMA to GSM offering higher bandwidth services and extended coverage). This example illustrates the utility of liberalisation in permitting the industry to respond to rapid advancements in technology.

These successes should be contrasted to HKCSL's repeated petitions to the TA to allow HKCSL to convert its spectrum assignment for the legacy TDMA-136 technology to another international technology standard during its spectrum assignment. HKCSL proposed to the TA that it use its TDMA spectrum for Extended-GSM ("E-GSM") purposes as a transition to WCDMA. However, despite HKCSL's concerted efforts, the TA did not deal with the technology change and spectrum swap issue until HKCSL's spectrum allocation was due to expire, thus denying HKCSL the opportunity to pursue its proposal. We refer the CITB to the more specific comments in relation to this issue contained in the submission HKCSL in response to the TA consultation paper "Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services" dated 19 June 2004.

3.11 Spectrum for government services

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

As stated previously in this submission, CSL considers that the TA should adopt a market-based approach to all aspects of spectrum management, unless there are compelling overriding public policy reasons for the TA to intervene. Bands that are reserved for government use are likely to be of increasing commercial value. To adopt the command and control approach to spectrum management in respect of all government services, regardless of policy considerations, would undermine the development of an effective market for spectrum. We endorse the comments of the Productivity Commission (page 227 of the Productivity Commission Report) that such a market might be undermined by discriminatory treatment of spectrum allocation or fees for some users, including government and non-commercial users.

Accordingly, CSL considers that, other than in relation to services relating to emergency services or national security (for which there are compelling public policy reasons to maintain a control and command regime), spectrum assignment for government services should be subject to the same market forces as commercial uses. We refer the CITB to the direction proposed by two recent studies commissioned in the UK and Australia favouring bringing government spectrum users “more into line with market based mechanisms for regulating spectrum” in order to realise optimal use of spectrum³. The UK study specifically recommends a presumption that new government spectrum needs should be

³The Independent Review of Government Spectrum Holdings discussion paper prepared by SpectrumWise Radiocommunications Consulting in relation to the Australian market, dated 13 November 2006, page 19, and the Independent Audit of Spectrum Holdings, a report by Professor Martin Cave for Her Majesty’s Treasury, December 2005, page 15.

acquired through the market other than in exceptional circumstances, and that any such spectrum be made tradable on the secondary market on similar terms to spectrum held by commercial operators.

In the event that the CITB chooses to retain the command and control approach for government services, we agree with the Consultation Paper that any spectrum reserved for government use should be subject to a regular administrative review mechanism, covering the issues outlined in the Consultation Paper. Particular focus should be made on new technologies providing the potential for shared use, either between government entities or between government and commercial use. The CITB should also ensure that sufficient incentives are provided for government users to adopt the findings of any administrative review, or preferably, disincentives to failure to adopt those findings.

CSL considers that the transparency principle should apply to government use, and decisions in relation to that use, unless reasons of national security necessitate confidentiality. The industry should also have the right to be consulted on any proposal for expansion of government spectrum. In addition, any request for expansion should be required to meet published requirements relating to efficiency of existing spectrum use, and intended future use as opposed to alternative methods of providing the relevant services.

3.12 Spectrum pricing

Do you agree that SUF should be applicable to commercial use of spectrum irrespective of whether there is competing commercial demand?

CSL agrees that a SUF should be imposed on all future spectrum assignments and any renewed assignments. In circumstances where the Government may have allocated commercial spectrum on a perpetual (or long-term) basis then payment of SUF may be appropriate, provided it is introduced in a timely manner.

However, CSL believes that there are a number of further considerations in relation to developing a uniform policy in relation to spectrum pricing which have not been captured in the question proposed by the Consultation Paper, and strongly urges the CITB to further consult the industry on wider aspects of spectrum pricing. It is imperative that the decision of when to apply the SUF, and the basis for calculation of such SUF should not be arbitrary. A lack of consistency and transparency in determining SUF may deter investment and distort the market. SUF should therefore be determined in a clear, consistent and competitively neutral manner.

Do you agree that SUF for spectrum not released through auction should be set to reflect the opportunity costs of the spectrum?

SUF for new spectrum markets

As stated previously, CSL agrees with the position that the TA adopt a market-based approach to spectrum management unless there are compelling public policy reasons otherwise. The issue of spectrum pricing is inextricably linked to a market-based approach, and, in particular, to providing incentives for efficient use or reallocation of spectrum. Accordingly, CSL considers that regardless of whether there is a competing commercial demand for the spectrum, and whether such spectrum is released through auction, the SUF for commercial use of spectrum in new spectrum markets should be set at the price that the market will bear for the spectrum. The best scenario in these circumstances could be a figure that is as low as zero, however given that the Government has not allowed market forces to operate to date, it is expected that reserve prices would continue to be feature of new spectrum allocations. As outlined in the Consultant's Report and the Consultation Paper, to do otherwise could deter spectrum use and thereby render it valueless to the community. This approach would provide incentive for investment in spectrum not otherwise utilised, potentially creating new markets.

Risk of distortion to existing markets

As the CITB is aware, Reserve Prices for spectrum used for 3G mobile telephony was determined without reference to the market⁴. Without appropriate action, this will lead to structural issues on the introduction of market-based SUF calculation for spectrum where there are competing commercial demands. As the Government has already set the competitive floor for reserve prices, spectrum policy must ensure equitable pricing for future assignments in the same markets to eliminate the risk of anti-competitive asymmetries or distortions in those markets. To do otherwise would result in new entrants having an unfair and anti-competitive advantage over existing players, impacting and undermining competition in the telecommunications sector.

We refer to our comments in relation to the competitive nature in these markets in our submission in response to the 850MHz Consultation. CSL proposes that competition can be maintained in existing markets by establishing reserve pricing for new entrants at the same rate as spectrum already assigned. Another option is the adjustment of the existing Reserve Prices so that they are in line with future reserve prices. Again, specifically in relation to the calculation of auction reserve prices and SUF in such circumstances, we refer the CITB to sections 6 and 7 of our submission in response to the 850MHz Consultation where we stated, inter alia, that reserve prices and SUF for future licensees should be set at exactly the same level as was paid by existing licensees.

In the event the Government establishes different levels of SUF on the basis of the type of use of the spectrum (or because spectrum is being used in different markets), then under a regime which incorporates spectrum liberalisation, the Government will need to consider how to deal with circumstances where if there is a change of use in particular spectrum (and a SUF exists for such spectrum) and that spectrum is then used in the same market as other licensees, how the SUF

⁴ As can be clearly seen in the Schedule to the Information Memorandum for Hong Kong Third Generation Mobile Services Licensing issued by OFTA in July 2001

level may need to change, commensurate with the change in use, to ensure that spectrum holders within the same market are charged the same level of SUF.

Administrative costs

The questions posed in the Consultation Paper (and set out above) fail to recognise that SUF cannot be considered in isolation and that both administration fees and SUF must be considered at this juncture. We believe that the applicability of “administration fees” must be reconsidered in light of any SUF.

Clearly, the CITB should be concerned to ensure that the true cost to OFTA for administering the spectrum is recovered from the users that commercially benefit from use of that spectrum. CSL considers that a market-based approach to calculation of SUF is consistent with this aim. As highlighted by the Consultant, OFTA’s present carrier licence fee structure takes into account the cost to OFTA of managing the spectrum, as well as providing a rate of return above cost and therefore cost recovery should not be a factor in determining SUF.

If, as supported by CSL, the CITB determines that spectrum licensing should be decoupled from carrier licences, CSL refers the CITB to the practice in other jurisdictions, such as Australia, where spectrum fees for spectrum with competing commercial demands are determined by a competitive auction process and, as such, are considered sufficient to recover both administrative costs and a fair return for use of the spectrum. CSL considers that the same could apply to the auction of commercially valuable spectrum in Hong Kong.

It should be noted that spectrum that is not assigned by way of auction in Australia is generally assigned by way of apparatus licence, the cost of which is administratively calculated based on recovery of the true cost to the regulator of managing the spectrum.

Asymmetry in spectrum fees

As part of a wider examination of fees applicable to spectrum licensing, CSL considers it essential that the CITB address the current asymmetry in spectrum fees between fixed and mobile carrier licensees as is evident from the radio frequency fees as set out in Schedule 3 of the Telecommunications (Carrier Licences) Regulation (Cap. 106V).

4 Interpretation

A reference to “**we**” or “**our**” includes a reference to HKCSL and New World PCS Limited.

850 MHz Consultation means the consultation by the TA in relation to the licensing of spectrum in the 850 MHz band to enable the provision of CDMA2000 service.

Broadband Wireless Access Consultation means the consultation by the TA on the Licensing Framework for Deployment of Broadband Wireless Access.

CITB means the Commerce, Industry and Technology Bureau.

Consultant means Ovum Limited, Indepen and Aegis.

Consultant’s Report means the report entitled “Spectrum Policy Review – Final Report” prepared by the Consultant.

Consultation Paper means the “Consultation paper on Proposed Spectrum Policy Framework” released on 25 October 2006 by the Communications and Technology Branch of the Commerce, Industry and Technology Bureau of the Government of Hong Kong.

HKCSL means Hong Kong CSL Limited.

Hong Kong means the Hong Kong Special Administrative Region of the People’s Republic of China.

Mobile Television Consultation means the consultation by the CITB on the introduction and regulation of mobile television in Hong Kong.

Ofcom means the Office of Communications.

OFTA means the Office of the Telecommunications Authority.

Productivity Commission Report means the Productivity Commission 2002, Radiocommunications, Report No. 22 (Commonwealth of Australia).

Reserve Prices means the minimum SUF royalty percentages and minimum annual fees under the 3G licensing scheme.

Spectrum Policy means the policy arising from the review of how spectrum should be managed following the Spectrum Policy Consultation and further consultation on spectrum issues that remain unresolved (e.g. spectrum liberalisation and spectrum trading).

Spectrum Policy Consultation means the current consultation in relation to the issues raised, and questions posed, in the Consultation Paper.

SUF means a Spectrum Utilisation Fee.

TA means the Telecommunications Authority.

TO means the Telecommunications Ordinance (Cap. 106).

5 Confidentiality

CSL does not regard any part of this submission as confidential and has no objection to it being published or disclosed to third parties, however, this submission in its entirety is made on the basis that it is **without prejudice** to the rights of CSL and its associated corporate entities.