Application for the Communications Authority's Authorisation pursuant to Section 14(1A) of the Telecommunications Ordinance (Cap.106) for Placing and Maintaining Radio communications Installation in Tai Lam Tunnel by Hong Kong Telecommunications (HKT) Limited

Preliminary Analysis

Background

On 6 September 2016, Hong Kong Telecommunications (HKT) Limited ("HKT") made an application to the Communications Authority ("CA") for an authorisation pursuant to section 14(1A) of the Telecommunications Ordinance (Cap. 106) (the "Ordinance") to place and maintain radiocommunications installations in Tai Lam Tunnel (the "Tunnel") for the provision of fourth generation ("4G") services under the Unified Carrier Licence ("UCL") No. 008 (the "Application"). The Tunnel is maintained and operated by Route 3 (CPS) Company Limited ("R3CPS") in accordance with the Tai Lam Tunnel and Yuen Long Approach Road Ordinance (Cap. 474).

- 2. Before 30 April 2016, HKT had maintained three agreements with R3CPS for placing and maintaining radiocommunications installations in the Tunnel for provision of second generation ("2G") and third generation ("3G") services. Amongst them, two agreements were made for the provision of 2G services and 3G services respectively in the Tunnel under its UCL No. 003 licence, and the two agreements have now been terminated. The third agreement was for the provision of both 2G and 3G services in the Tunnel under its UCL No. 008 licence, and it remains in force as of today. According to this agreement, the monthly licence fee is HK\$[\$\times\$] covering both 2G and 3G services in the Tunnel.
- 3. For the provision of 4G services within the Tunnel, HKT began its negotiation with R3CPS on 30 September 2015 for a new agreement, and proposed a monthly licence fee of HK\$[\times]. On 6 November 2015, R3CPS counter-proposed HK\$[\times] per month as the licence fee for 4G service. HKT rejected R3CPS's counter-proposal on 11 November 2015 and maintained its original offer with some slight adjustment at HK\$[\times] per month.
- 4. On 17 May 2016, HKT increased its offer again to HK\$[\times] per month but it was rejected by R3CPS on 24 May 2016. On 27 June 2016, R3CPS informed HKT that the proposal was withdrawn due to

non-acceptance by HKT of its counter-offer which had lapsed. After receiving the Application, OFCA asked both parties to endeavour to resolve the issue by way of commercial negotiation. According to R3CPS's submission to us on 24 November 2016, its proposed licence fee to HKT was revised to HK\$[\gt] on 21 November 2016.

5. The proposed radiocommunications installation ("Installation") is set out in item (iv) of HKT's letter to OFCA of 5 October 2016 which supplemented its Application dated 6 September 2016.

Legal Basis

- 6. The CA is empowered under section 14(1A) of the Ordinance to grant an authorisation to any licensee to
 - (a) place and maintain a radiocommunications installation in, over or upon any land for the purpose of providing a radio communications service to a public place; and
 - (b) enter any such land for the purpose of
 - (i) inspecting it; or
 - (ii) other activities which are for the purpose of or incidental to the maintenance and placement of the installation.
- 7. Under section 14(1B) of the Ordinance, the CA shall not grant an authorisation referred to in section 14(1A)
 - (a) unless it is satisfied that the authorisation is in the public interest;
 - (b) except after taking into account-
 - (i) whether an alternative location can be reasonably utilised for placing the radiocommunications installation to which the authorisation, if granted, will relate;
 - (ii) whether or not there are technical alternatives to the installation;
 - (iii) whether or not the utilisation of the land to which the authorisation, if granted, will relate is critical for the supply of the service by the licensee seeking the authorisation;
 - (iv) whether or not that land has available capacity to be so utilised having regard to the current and reasonable future needs of the occupants of that land; and
 - (v) the costs, time, penalties and inconvenience to the licensee and the public of the alternatives, if any, referred to in subparagraph (ii);
 - (c) unless it has given a reasonable opportunity to the persons having a lawful interest in the land concerned and to the licensees concerned to make

representations and has considered all representations made before it decides whether or not to grant the authorisation; and

- (d) unless it -
 - (i) gives reasons in writing for the grant of the authorisation; and
 - (ii) specifies in writing the technical requirements, if any, of the right of access arising from the authorisation.
- 8. Having considered the information provided by the respective parties, the CA is satisfied that the Application falls within the framework of section 14(1A) of the Ordinance for the following reasons
 - (a) the Application is for placing and maintaining a radiocommunications installation of HKT, being a unified carrier licensee licensed to operate public mobile radiocommunications services; and
 - (b) the Tunnel constitutes a "public place" as defined under the Ordinance.

The Proceedings

9. The CA invited R3CPS to make representations in relation to the Application. R3CPS gave its representations by letters on 24 November 2016 and 3 January 2017. In response to the CA's request for further clarifications, HKT provided its clarifications on 20 December 2016 and 11 January 2017. HKT also gave its comment on R3CPS's representations on 24 February 2017.

Representations and CA's Preliminary View

10. The comments and representations of the parties and the preliminary views of the CA after taking into consideration all the submissions and representations made by the parties are given in the paragraphs below.

Public Interest – Section 14(1B)(a)

HKT's Representations

11. HKT submitted that the Tunnel, being 3.8 kilometres in length and the longest road tunnel in Hong Kong connecting Ting Kau, Tsuen Wan and Au Tau in Yuen Long, serves as a major access route between Hong Kong and Mainland China. With more than 62,000 vehicles pass utilising the Tunnel daily and the number is growing, the demand from mobile traffic growth cannot be met by the capacity of its existing 2G/3G network in the Tunnel and this is already causing mobile traffic congestion during busy hours. The general public nowadays relied more on mobile data services in their daily life, and as such a stable 4G network would be vital. HKT

claimed that public interest would be served if commuters who used the Tunnel were able to continue to have reliable mobile voice and data services. HKT submitted that any hindrance to its mobile data service expansion would trigger public safety issue for the Tunnel users because its customers would not be able to use their mobile phones in case of any vehicle break down or accident there due to mobile traffic congestion.

R3CPS's Representations

- 12. R3CPS did not agree with HKT's claim that there was public safety concern if HKT's Installation was not placed in the Tunnel. According to R3CPS, a total of 152 emergency telephones had been installed along the Tunnel for immediate access by the public for direct and emergency communication with R3CPS's Central Control Room and R3CPS's staff monitored the Tunnel closely in a round-the-clock manner for rendering any assistance to the public in need. R3CPS further claimed that mobile phones nowadays would automatically switch to using 3G or even 2G services if there was no 4G coverage and that mobile users could still reach emergency services over mobile network of other operators by dialling 112 on their mobile phones.
- 13. Regarding HKT's claim that the Installation was in the interest of the public, R3CPS also disagreed with that claim and considered that HKT could at most claim that the Installation in the Tunnel was in the interest of its 4G customers but not the public at large since HKT was only one of the mobile operators in Hong Kong.
- 14. R3CPS also pointed out that HKT's surrender of one of its two 2G and 3G installations originally placed in the Tunnel was contradictory to its claim that the traffic growth in the Tunnel had caused congestion of its existing 2G/3G network service during busy hours.
- 15. Having been repeatedly urged by the Government to seek other revenue streams in order to defer or minimize the impact of its toll increase to the public, R3CPS considered that in case it accepted a lower-than-reasonable licence fee proposed by HKT, its toll increase might subsidise the commercial interest of HKT at the expense of the public.

HKT's Further Representations

16. In response to R3CPS's representations stated above, HKT pointed out that 4G service subscribers formed a major part of the mobile market and its 4G user population increased by 25% as compared to the same period last year. HKT further pointed out that nowadays it was difficult for consumers to find a 2G/3G only handsets in the market. 4G smartphones are getting more popular and the general public users are more and more relying on a fast and reliable mobile data network to make their life easier and more convenient.

CA's Preliminary View

- 17. The CA, when considering the public interest of the Application under section 14(1B)(a) of the Ordinance, has taken into account the following factors -
 - (a) whether the provision of an extensive and reliable radio coverage public radiocommunications services to the general public is consistent with the policy of the Government;
 - (b) the inconvenience to the general public if the authorisation under section 14(1A) of the Ordinance is not granted;
 - (c) whether the parties had engaged in negotiations for a protracted period of time but failed to reach an agreement; and
 - (d) the maintenance of the a light-handed regulatory environment, with a view to refraining from regulatory intervention unless so justified.
- 18. As of November 2016, HKT had about [\times] 4G mobile users. The CA considers that there is public interest to ensure the continuation of uninterrupted and reliable radiocommunications services for the road users when using the Tunnel. Such services would be unduly hindered if HKT could not reasonably place and maintain the Installation within the Tunnel. Based on the available evidence, the CA is of the view that it is unlikely that HKT and R3CPS are able to reach an agreement in the near future given the parties have started their negotiations in September 2015 and their views on the reasonable amount of licence fee remain divergent.
- 19. Having considered the parties' representations, the CA is satisfied that its intervention in this case is justified and the grant of an authorisation under section 14(1A) of the Ordinance is in the public interest.

Considerations under Section 14(1B)(b)

Whether an alternative location can reasonably be utilised for placing the Installation

20. HKT submitted that given the Tunnel was a 3.8 km long tunnel tube situated under Tai Lam Country Park and entirely enclosed by mountains, it was impossible for HKT to provide adequate 4G mobile coverage through neighbouring outdoor radiocommunications installations. HKT also pointed out that the physical landscape presented difficulties for providing mobile coverage through 4G radio signals from outdoor radio stations as the radio signals could hardly penetrate enclosed concrete structure like the Tunnel.

- 21. R3CPS expressed that it was not in a position to comment on the viability of any other alternative locations.
- 22. Taking into account the nature and length of the Tunnel and its shielded environment, the CA considers that HKT would not be able to provide reliable 4G radiocommunications services through outdoor base stations to the mobile phone users when using the Tunnel.
- 23. Having been satisfied that reasonable opportunity has been given to the parties to make representations on this issue and having considered their representations, the CA is of the view that there is no alternative location, other than the land required for the Installation by HKT as set out in item (iv) of its letter on 5 October 2016 (the "land concerned"), that can be reasonably utilised for placing the Installation for providing uninterrupted and reliable radio coverage to areas within the Tunnel.

Whether or not there are technical alternatives to the Installation

- 24. Having explored different technical alternatives to replace the Installation in order to enhance the capacity and mobile data performance, HKT submitted that given the present available technology and geographical constraints, there was no satisfactory alternative to provide 4G radiocommunications services coverage to the areas within the Tunnel. HKT considered that the expansion of its existing 2G/3G network in the Tunnel was not a viable solution since the equipment employed old technologies which were not effective to manage mobile data traffic generated from 4G smartphones that were commonly used in the market.
- 25. R3CPS submitted that it was not in a position to comment on the availability of other technical alternatives.
- 26. Given the present state of technology and geographical constraints, the CA is satisfied that there is no other technical alternative to the Installation for the provision of 4G radiocommunications services to the mobile users travelling in the Tunnel.

Whether or not the utilisation of the land to which the authorisation, if granted, will relate is critical for the supply of the service by the licensee seeking the authorisation

27. HKT stated that the land concerned was a unique and important location essential for the smooth and uninterrupted service operation of HKT. HKT considered that the utilisation of the tunnel area concerned was critical for it to continue to provide quality 4G mobile services to its customers travelling in the Tunnel and therefore it was in the interest of the public that the service be continued without interruption.

- 28. R3CPS submitted that it was not in a position to comment on whether the utilisation of the land concerned was critical for the supply of services by HKT.
- 29. For the provision of adequate radio coverage to the Tunnel, the CA agrees that the Installation is necessary for the provision of uninterrupted and satisfactory radiocommunications services within the Tunnel. The utilisation of the land concerned to which the authorisation, if granted, will relate is therefore critical for the supply of the services by HKT.

Whether or not that land has available capacity to be so utilised having regard to the current and reasonable future needs of the occupants of that land

- 30. According to HKT, it surrendered one of its two 2G and 3G installations in the Tunnel at the end of 2015 and had vacated the related equipment space. HKT considered that the Tunnel did have structural and physical capacity available to accommodate the Installation.
- 31. R3CPS submitted that subject to the scrutiny on technical plan submitted by HKT, it believed that space in the Tunnel was available for the Installation.
- 32. In view of the fact that there was no dispute in respect of the availability of the land concerned on the Installation, the CA is of the view that there is available capacity in the Tunnel to be utilised for placing the Installation in the light of the current and reasonable future needs of occupants there.

The cost, time, penalties and inconvenience to the licence and the public of the alternatives, if any, referred to in subparagraph (ii) of section 14(1B)(b)

33. As, in respect of sections 14(1B)(b)(i) and (ii) of the Ordinance, there are no alternative locations for placing or technical alternatives to the Installation, the CA is of the view that this consideration is not applicable.

Other considerations

HKT's Representations

- 34. HKT requested the CA to grant an authorisation within the timeframe of 2016 given that R3CPS withdrew its offer of a new 4G licence agreement with HKT on 27 June 2016.
- 35. Concerning the terms and conditions of the authorisation, HKT is also seeking the CA's determination of an interim fee pursuant to section 14(1D)(a) of the Ordinance (including the terms and conditions in accordance with which the fee shall be payable) to be paid by HKT to R3CPS.

R3CPS's Representations

36. R3CPS advised the CA to note its obligations under section 16(6) of Tai Lam Tunnel and Yuen Long Approach Road Ordinance (Cap. 474) that R3CPS had to treat all applications for installation of utilities within the toll area fairly and in a similar manner; and shall impose similar terms and conditions (including charges), as regards to such installation, especially for dealing with similar applications where there are successful precedent cases to follow.

CA's Preliminary View

37. The CA notes that the disagreement between the parties is mainly on the amount of licence fee. The CA will address the parties' disagreement on this point in the paragraphs below.

Request for Determination on Interim Fee

38. Under section 14(1D) of the Ordinance, the CA shall, upon application made to it, specify in writing an interim fee (including the terms and conditions in accordance with which it shall be payable) to be paid by the licensee to the landowner. In any future arbitration proceedings for the determination of the fee under section 14(5)(b) of the Ordinance, regard shall not be given to the amount of interim fee imposed by the CA. In a determination under section 14(5)(b), the arbitrator shall, in specifying the fee to which the determination relates, include provisions for set-off of any interim fee paid.

HKT's Representations

- 39. HKT submitted that the CA should adopt the current market rate for a single system as an interim fee under section 14(1D) by not considering the details of each party's submissions in support of their respective proposed fees as that was a matter for the arbitrator.
- 40. HKT considered that the CA should use the fee level which was previously agreed by the parties as the leading reference, and might consider the licence fees commercially agreed by HKT in respect of similar radiocommunications in other private tunnels as relevant.
- 41. HKT proposed that the interim fee should be HK\$[

 per month for the following reasons −

]
 - (a) HKT was currently paying a monthly licence fee of HK\$[\$\times \] for the provision of its 2G and 3G services in the Tunnel and the average licence fee per system was therefore HK\$[\$\times \];

- (b) The average licence fees in respect of 4G services that HKT paid to the other private tunnel operators in Hong Kong were HK\$[**≫** Tate's Cairn Tunnel, HK\$[**≫** 1 at Western Harbour Tunnel. That gave average monthly licence an HK\$[**≫**]. Such licence fees were made commercial agreements that pursuant and the to radiocommunications installations were similar to HKT's installations in the Tunnel:
- (c) In comparison to other private tunnels, the licence fee proposed by HKT in respect of 4G services for the Tunnel was the highest, even though the average daily traffic in the Tunnel was not the highest among those private tunnels;
- The charges paid to tunnel operators are already excessive. The CA should take the opportunity to set a lower fee that is more in line with the lower fees paid by HKT to the other landowners. While the licence fee HK\$[%] proposed by HKT only reflected the average fee payable, it should be treated as an upper end as it still does not reflect a competitive market and hence not a true "market benchmark"; and
- (e) There was no reasonable basis upon which R3CPS could seek such excessive increase in its fees. The fees charged by R3CPS demonstrated the advantageous/monopolistic position enjoyed by R3CPS in the present dispute. R3CPS sought to increase HKT's monthly licence fee for placing a new system in the Tunnel by a substantial amount. This is notwithstanding that the Installation, of which the nature and space required are not different from other systems which are already put in place in the Tunnel.

R3CPS's Representations

- 42. R3CPS considered it fair and reasonable that the proposed monthly licence fee should be proportionate to the available bandwidth assigned by the CA, the broader the bandwidth, the higher the licence fee.

Combined monthly licence fee = "total mobile frequency spectrum assigned to a particular mobile network operator" x "Standard rate per MHz"

in which the standard rate per MHz was HK\$[\times] by making reference to R3CPS's agreement with another MNO and HKT was assigned with 179 MHz frequency spectrum. Therefore for HKT,

Combined monthly licence fee (Total mobile frequency assigned to HKT x Standard rate per MHz)		[*	HK\$]
Current monthly licence fee for HKT's 2G and 3G radiocommunications installations	less:	[*]
Monthly licence fee chargeable to HKT's 4G radiocommunications installation		[%]

R3CPS submitted that it referred to the publication of the CA for the available bandwidth of HKT and treated the calculation of licence fees to all MNOs on the same basis.

- 44. R3CPS noted that HKT charged its individual customers a much higher price for its 4G services than for its 2G and 3G services. As such, R3CPS considered that if the proposed licence fee for HKT's 4G services was the same as that for its 2G/3G services, the fundamental commercial principle would be effectively distorted.
- 45. R3CPS further pointed out that its proposed monthly licence fee should also be assessed based on the commercial value of the service to which its customers attach. Given the asymmetry of information between the parties, R3CPS considered that the calculation method of its proposed monthly licence fee was fair and objective, as attested by the acceptance of another MNO.
- 46. The negotiation between HKT and R3CPS on the monthly licence fee of its 4G services in the Tunnel was purely a commercial activity, without any public interest involved at large. The proposed monthly licence fee was reasonable as evidenced by the acceptance of another MNO.

47. R3CPS submitted that it might not be relevant to compare its proposed monthly licence fee with those that are charged by other vehicular tunnels as different Build-Operate-Transfer tunnels had different commercial considerations. It further considered that the comparison of R3CPS's proposed monthly licence fee with those government vehicular tunnels was totally irrelevant as the Government only charged the MNOs based on the occupied areas without any commercial consideration.

HKT's Further Representations

- 48. HKT submitted that due to the excessive monthly licence fee demanded by R3CPS, so far only one MNO could provide 4G services in the Tunnel. Compared to other tunnels, most of them are already having two or three MNOs providing 4G services. HKT therefore considered that public interest is clearly at stake.
- 49. Regarding the method of calculation R3CPS had used (paragraph 42 and 43 above), HKT submitted that it was the first time for HKT to learn that the proposed monthly licence fee chargeable to it by R3CPS was based on HKT's spectrum holdings. HKT further submitted that R3CPS's bandwidth-based charging mechanism was not new to MNOs. MTR Corporation Limited ("MTRC") had adopted a similar method for many years but the difference is that MTRC allowed MNOs to choose the amount of bandwidth to be injected into the system based on technology neutral principle, instead of calculating the licence fee based on the whole bandwidth as assigned by the CA. Therefore the licence fee was determined by the amount of bandwidth multiplying by an agreed unit rate per MHz. HKT indicated that it was willing to explore this new proposal with R3CPS provided that (a) a mutually agreed unit rate per MHz could be reached; (b) HKT would be free to determine the amount of bandwidth to be injected into the system; and (c) the use of bandwidth is in a technology neutral manner.
- 50. As regards R3CPS's claim that all applications for installation of utilities within the Tunnel had to be fairly treated and in a similar manner, HKT considered that it was not fair for HKT to simply follow the terms and conditions of an agreement to which HKT was not a party. HKT considered that for new applications, R3CPS should consider other relevant factors such as using effective bandwidth injected into the system inside the Tunnel instead of using the whole bandwidth assigned by the CA.

CA's Preliminary View

51. The CA considers that, in line with the approach adopted in dealing with the previous applications for authorisation under section 14(1A) of the Ordinance, it would not go into details of the merits of each party's submissions in support of their respective proposed fees. The determination of the fee is a matter for the arbitrator. Any detailed assessment of the relevant considerations should be left to the arbitrator, who is obligated under section 14(6)(a) of the Ordinance to have regard to the

guidelines issued by the CA on the principles to be adopted for determining a fee. It is expressly provided in section 14(6) of the Ordinance that the arbitrator shall not give regard to the amount of any interim fee specified by the CA.

- 52. The interim fee to be set needs to be fair and reasonable in all the circumstances of the case as it is required by the law. While the past cases would be of some referential value to the CA, it has to exercise its judgement and discretion in individual cases. For the avoidance of doubt, nothing herein shall prejudice the contentions by each party in any future arbitration.
- 53. The CA notes the following evidence and information provided by the parties
 - Prior to this Application, HKT had placed and maintained its 2G and 3G radiocommunications installations in the Tunnel under separate licence agreements. The total monthly licence fee was HK\$[%], thus giving an average monthly fee of HK\$[%] per system;
 - (b) The average amount of the monthly licence fee currently paid by each of the four MNOs to R3CPS for placing and maintaining their radiocommunications installations (including 2G, 3G and 4G networks) in the Tunnel is approximately HK\$[\$\times\$] per system;
 - (c) R3CPS proposed licence fee of HK\$[\$\times \] was calculated based on the following formula –

HK\$ Combined monthly licence []] fee (Total mobile frequency assigned to HKT x Standard rate per MHz) Current monthly licence fee less: [] 1 for HKT's 2G and 3G radiocommunications installations [] Monthly licence fee 1 chargeable to HKT's 4G radiocommunications

installation

- (d) Based on the calculation principle as specified in subparagraph 53(c) above, R3CPS had reached an agreement with a MNO on the monthly licence fee chargeable for placing and maintaining of its 4G radiocommunications in the Tunnel; and
- HKT provided the information concerning the licence fees that (e) it paid Western Harbour Tunnel and Tate's Cairn Tunnel the amount of HK\$[**≫**< and HK\$[**≫** respectively for placing maintaining its 4G radiocommunications installations in their tunnels. The average monthly licence fees paid by HKT to these private tunnel operators is therefore HK\$[**≫** 1.
- 54. The CA notes HKT's comment that it would be inappropriate to regard the average fee per system that it was paying to R3CPS as a true "market benchmark" in the absence of a competitive market. The CA would like to point out that the current licence fees payable by individual MNOs were arrived at after commercial negotiations between each MNO and the respective tunnel operators. The direction of payment and the level of fees reflect the economic value of mobile connection as estimated by each party during the negotiation process. These provide useful guidance to the CA in setting the interim fee.
- 55. The CA notes that the average monthly licence fee (calculated in per four system basis) currently paid by the **MNOs** to R3CPS is (HK\$[**>**< The monthly licence fee (HK\$[% 1)]). proposed by HKT to R3CPS is the average monthly licence fee it is paying R3CPS for its 2G and 3G systems in the Tunnel, and this commercially negotiated outcome can serve as a good indicative reference if there is no significant difference between 2G/3G systems and 4G system as far as installation of the concerned systems in the Tunnel is concerned. Although HKT's proposed licence fee is around 8% lower than the average monthly licence fee paid by the other MNOs to R3CPS, such amount is already higher than the monthly licence fees paid by HKT to other private tunnel operators in respect of 4G system. Since the monthly licence fees paid by HKT to other private tunnel operators in respect of 4G system were agreed after commercial negotiation by HKT with other tunnel operators, they could also be used as a reference for indicating the level of fee for 4G system involved in the Application. The CA therefore considers that the monthly licence fee of HK\$[**≫** proposed by HKT is not unreasonable.
- 56. The CA attached little weight to the calculation principle of monthly licence fee proposed by R3CPS because it is not as prevalent as the other methods that were shown by HKT as used by other similar tunnel operators and the results seem to tilt the balance disproportionately in favour of the recipient without any regard to the actual circumstances (such as actual bandwidth injected into the system) of the case.

- 57. The CA also wishes to point out that since the introduction of section 14(1A) of the Ordinance in 2000, the determinations of interim fees for placing and maintaining the MNOs' radiocommunications installations in the tunnels, pursuant to section 14(1D) of the Ordinance, have been primarily based on a per system method. As far as the present Application is concerned, the CA considers that there is no clear justification for deviating from the current practice of adopting the per system basis approach, in determining interim fees.
- 59. The CA would like to stress that the interim fee does not prejudice any future contentions by the parties if they resurrect their commercial negotiations or opt for arbitration for the determination of the fee. For the avoidance of doubt, if the parties proceed to arbitration to determine the access fee, the arbitrator may make provisions for set-off of any interim fee paid by HKT to R3CPS.

Preliminary View on Whether or Not the Authorisation should be Granted

- 60. Having been satisfied that a reasonable opportunity has been given to the persons having a lawful interest in the land concerned and to the licensee concerned to make representations and having considered all the representations made before it pursuant to section 14(1B)(c) of the Ordinance, the CA is satisfied that the grant of an authorisation to HKT under section 14(1A) of the Ordinance for HKT to maintain the Installation on the land concerned to provide radio coverage within the Tunnel is in the public interest after taking into account that
 - (a) no alternative locations other than the land concerned can be reasonably utilised for placing the Installation to which, the authorisation, if granted, with relate;
 - (b) there are no technical alternatives to the Installation;
 - (c) the utilisation of the land concerned to which the authorisation will relate is critical for the supply of quality service by HKT;
 - (d) the land concerned has available capacity to be so utilised having regard to the current and reasonable future needs of the occupants of that land; and

(e) the cost, time, penalties and inconvenience to HKT and the public of the alternatives, if any, referred to in (b) above are irrelevant because the CA is satisfied that there is no technical alternative to the Installation.

Interim Fee

61. Pursuant to section 14(1D) of the Ordinance, the CA hereby specifies that the monthly interim fees payable by HKT to R3CPS should be HK\$[\$\times\$] for placing and maintaining the Installation at the Tunnel.

Invitation for Further Representations

62. The CA invites the parties to make comments and representations, if any, on this Preliminary Analysis for its due consideration before it makes the final decision as to whether the authorisation under section 14(1A) of the Ordinance should be granted, and if the authorisation is be granted, the level of the interim fee and the technical requirements, if any, of the right of access arising from the authorisation.

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