

**For discussion
on 20 March 2023**

**Legislative Council Panel on
Information Technology and Broadcasting**

**Strengthening 5G infrastructure:
Amendments to Telecommunications Ordinance (Cap. 106)
and Relevant Guidelines**

Purpose

This paper briefs Members on the latest 5G development in Hong Kong and the updated progress with respect to the Government's proposal to strengthen 5G infrastructure by amending the Telecommunications Ordinance (Cap. 106) ("TO") and relevant guidelines.

Promoting the Development of the Fifth Generation Mobile Communications ("5G") in Hong Kong

2. With the characteristics of high speed, high capacity, high reliability, massive connectivity and low latency communications, 5G technology not only revolutionises users' experience of mobile communications services but also offers vast potentials for various innovative commercial services and smart city applications in Hong Kong.

3. Mobile network operators ("MNOs") in Hong Kong launched commercial 5G services in April 2020. At present, 5G network coverage in Hong Kong has covered more than 90% of the population, covering major locations in the urban areas and all 98 stations along the Mass Transit Railway lines. The coverage in core business areas for some MNOs has even reached 99%. As of November 2022, the number of 5G users reached almost 4.4 million, representing about 60% of the population. Hong Kong continues to rank among the top places¹ in the world in terms of 5G network coverage according to the report of an international survey

¹ Ranked the third globally, after Puerto Rico and South Korea.

organisation. We will continue to implement a series of measures, including opening up 1 500 government premises to facilitate installation of radio base stations for the MNOs, making available suitable spectrum timely for 5G development to suit market needs, and implementing a subsidy scheme to provide financial incentives to encourage fixed network operators (“FNOs”) to extend fibre-based networks to villages in remote and rural areas, etc. to enhance further development of 5G network and services.

4. In addition, to encourage various sectors to deploy 5G technology early to improve efficiency and productivity of their operations and quality of their services, we launched the Subsidy Scheme for Encouraging Early Deployment of 5G² (“Scheme”) under the second round of Anti-epidemic Fund in May 2020. A total of \$100 million will be disbursed under the Scheme. The Scheme has been well received with enthusiastic responses across sectors. The application deadline has been extended several times until 31 December 2022 with around 170 applications involving more than \$76 million approved under the Scheme so far. The Scheme has successfully facilitated various sectors to apply 5G technology and adopt innovative 5G solutions.

5. The approved projects cover different sectors and industries including medical, education, construction, engineering, transportation, property and facilities management, logistics, etc. Among them, some innovative applications include 5G augmented reality based building information modelling for construction sites, remote repair support system of telecommunications operators, smart support system for special education, smart farming learning platform for STEM education, remote passengers counting system, remote-controlled rubber-tyred gantry cranes, etc. The Scheme has successfully facilitated the application of 5G technology in different sectors, promoting the development of smart city and bringing convenience to people’s daily lives. It has also opened up more business opportunities and development potentials for start-up businesses. The list of approved projects is at **Annex 1**.

² Under the Scheme, the Government will subsidise 50% of the actual cost directly relevant to the deployment of 5G technology in an approved project, subject to a cap of \$500,000. The extended application period ended on 31 December 2022.

Strengthening 5G Infrastructure

6. Although Hong Kong's 5G network coverage is amongst the best in the world, the mobile communications service coverage in some remote areas, new development areas and old districts is still less than satisfactory as compared with that under the third generation and fourth generation mobile services. Most of the mobile communications facilities installed by the MNOs are located in densely populated urban areas and at sites of private buildings.

7. According to the existing regulatory framework under the TO, while FNOs are generally authorised by the Communications Authority ("CA") to enter any land or place to place and maintain telecommunications lines without any payment of fee to the landowners³, the grant of the CA's authorisation to the MNOs for access to private land or place for radiocommunications installations is however subject to the requirements of the TO, that such installations would be in the public interest and comply with stringent criteria⁴ with the payment of a fee to the persons having a lawful interest in the land. Accordingly, under the current situation, the MNOs may do so only through commercial agreements with the respective landowners and are subject to payment of a fee. These commercial negotiations are often protracted. There are also cases where there is a lack of suitable floor space or ancillary facilities (e.g. cable duct, electricity supply) in buildings for mobile communications facilities installations, or where the landowners have simply refused to negotiate with the MNOs concerned. All these factors have hindered further mobile communications facilities installations and the expansion of mobile communications service coverage. Considering that mobile communications service is now a basic and essential utility, the 2022

³ Section 14(1) of the TO.

⁴ The criteria are provided for in section 14(1A) and (1B) of the TO, which include, among others, that the radiocommunications installation is to be placed or maintained for the purpose of providing a radiocommunications service to a public place, that the CA is satisfied that the authorisation to be granted to the MNO concerned is in the public interest, that consideration has to be given by the CA as to: (i) whether an alternative location can be reasonably utilized for placing the radiocommunications installation to which the authorization, if granted, will relate; (ii) whether or not there are technical alternatives to the installation; (iii) whether or not the utilization of the land to which the authorization, if granted, will relate is critical for the supply of the service by the MNO seeking the authorization; and (iv) whether or not that land has available capacity to be so utilized 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 MNO concerned and the public of the alternatives, if any, referred to in (ii) above, and that the CA has to give a reasonable opportunity to the persons having a lawful interest in the land concerned and to the MNO concerned to make representations and has to consider all representations made before it decides whether or not to grant the authorization.

Policy Address (“Policy Address”) announced the Government’s plan to amend the TO and relevant guidelines to ensure that appropriate space is made available in new buildings for installation of mobile communications facilities by relevant telecommunications operators. This proposal will greatly enhance Hong Kong’s telecommunications infrastructure which is critical to the expansion of 5G network coverage in Hong Kong.

8. To implement the proposal in the Policy Address, we suggest amending section 14⁵ of the TO to the effect that the MNOs may be authorised by the CA to enter new buildings for placing, maintaining or inspecting (as the case may be) radiocommunications installations, without the need to fulfill the list of stringent criteria currently applicable to the authorisation to be granted by the CA, as well as the requirement to pay a fee to the persons having a lawful interest in the land. The legislative amendment aims to enable the MNOs’ access to new buildings for placement and maintenance of relevant telecommunications facilities in a similar manner as that currently applicable to FNOs on private land or properties.

9. Apart from amending the TO, the CA will implement the aforementioned proposal through relevant administrative arrangements, including the issue of *Code of Practice for the Provision of Access Facilities in Buildings for the Provision of Mobile Communications Services*, which provides detailed information (such as the standard and minimum requirements of related facilities) and ensures availability of space to accommodate the MNOs’ radiocommunications equipment and other access facilities like ducts / risers / trunkings for carrying the cables, etc. when preparing the building plans for new buildings.

10. Besides, we will follow up with relevant government departments to amend other relevant guidelines / Code of Practice / Practice Note / new land lease, etc. to specify the design and associated requirements for the availability of space in different locations / floors of new buildings (e.g. telecommunications and broadcasting equipment room, rooftop, intermediate / lower level, where applicable) for installation of mobile communications facilities by the MNOs. Preliminarily, we recommend that the proposal will apply to new buildings with general building plans or major revision of such plans approved by the Building Authority on or after six months from the commencement date of the legislative amendments.

⁵ In this legislative amendment proposal, we plan to introduce adaptation of laws to the TO, updating the references as necessary in compliance with the constitutional framework of “one country, two systems”.

We will also consider suitable exemption arrangement⁶ depending on the actual situation. Exact requirements and arrangement will be finalised taking into account views collected from the trade and the stakeholders.

11. We are in the course of consulting relevant stakeholders including the MNOs, developers and industry bodies on concrete details and arrangements for taking forward the aforementioned proposal. They are invited to provide professional views on the proposal. The consultation document has been uploaded to the website of the Commerce and Economic Development Bureau: <https://www.cedb.gov.hk/en/news-and-related-information/consultation-papers.html> (see **Annex 2**). We will examine the views collected and follow up with relevant government departments to finalise the proposed legislative amendments. We aim to introduce the relevant amendment bill into the Legislative Council within 2023.

Advice Sought

12. Members are invited to note the content of this paper and provide comments.

Commerce and Economic Development Bureau
March 2023

⁶ For instance, small buildings or a new property development of multiple buildings may be exempted.

Projects Approved under the Subsidy Scheme for Encouraging Early Deployment of 5G
 (as at end February 2023)

<u>Project</u>	<u>Details</u>
Construction	
Augmented reality (AR) based building information modelling (BIM) for construction sites	Engineers and relevant staff can apply and modify BIM at construction sites to obtain construction details on-site.
3D modelling for underground works	By using 4K video shooting at excavation sites, 3D modelling for underground cable facilities can be constructed.
Site management and safety system	Artificial intelligence (AI) based image analytic technology allows intelligent site management to monitor the situation on-site and sent out alerts automatically in the event of abnormalities, and real-time monitoring of the site by management staff.
Self-propelled robot for building material delivery	Remote controlled robot is deployed to deliver building materials at construction sites.
Guided suspension working platform	5G-guided suspended working platform is deployed in lift shaft to enhance the safety of lift repair and maintenance work.
Property and building facility management	
Real-time monitoring of lift safety and remote technical support solution	The solution provides real-time remote support to lift maintenance technicians, and round-the-clock monitoring of lift operation.
Intelligent car parking management system	AI based vehicle image analytic technology is deployed to record vehicles entering and leaving car parks and control the opening and closing of gates.
Customer service/patrol robot	5G robots are deployed to provide services, such as concierge, security patrol, disinfection, advertising, 24 hours monitoring with alert issuing, and air quality check at different venues (e.g. large shopping centres, exhibition venues, offices, and cable tunnel).
Crowd control and security system	AI based system is deployed for real-time calculation of number of customers, detection of intruders inside restricted areas and security alerts will be sent out in the event of abnormalities.

<u>Project</u>	<u>Details</u>
Finance and insurance	
Virtual trading desk	With 5G mobile virtual reality (VR), dealers working remotely can engage in foreign exchange trading, etc.
Vehicle telematics insurance system	Through the use of 5G network, AI image analysis and Internet of Things sensors are deployed in vehicles to analyse the driver's behaviour, which will be used by insurance companies for setting car insurance premiums.
Transport and logistics	
Management system for real-time detection of unauthorised access to tunnel	AI and cloud based video analytic system is deployed to detect intrusion into tunnels and alert management staff immediately for follow-up actions.
Video monitoring of professional drivers and road conditions	AI based video analytic system is deployed to detect drivers' and road conditions and to send out alerts in time.
Real-time container loading optimisation system	Mixed reality (MR) and AI based analytic technology are deployed to enable logistics workers to utilise container space more effectively.
Work safety	AI based analytic technology is deployed to monitor at real time the work safety of workers operating truck-mounted cranes.
Remote-controlled rubber-tyred gantry cranes	Through 5G network, rubber-tyred gantry cranes are remotely controlled and operated for enhancement of the operation and work safety of container terminals.
Remote passengers counting system	AI analysis technology is deployed to detect and count the number of queuing passengers at large bus interchanges. The system assists the bus company to schedule bus services more efficiently to ease the crowd of passengers at bus interchanges.
Medical, healthcare and public health	
Engineering design of remote surgical device	AR/VR technologies are deployed to enable collaborative design of remote surgical devices.
Remote advice and training for surgical operation	Through 5G network, a high definition (HD) video system is deployed to offer remote advice and training for surgical operations.
Remote emergency service support	Remote emergency and diagnosis service support is offered.
Smart wearable safety device for high-risk workers and the elderly	Smart devices and 4K videos are deployed to provide real-time detection and analysis of high-risk

<u>Project</u>	<u>Details</u>
	workers' or elderlies' physical conditions and positions.
AI based device for the visually impaired	Through the use of high quality imaging, AI based analytic system and real-time audio alerts, visually impaired persons are provided with text and object identification support and other relevant assistance services.
Insecticide spraying robot	Robots equipped with 5G technology and autopilot is deployed to spray insecticide and monitor surroundings in real time.
Telemedicine and biological data monitoring robot	5G robot is deployed to monitor human body temperature and provide video medical consultation services for patients in real time.
Environmental protection	
Smart recycling machines	With real-time image and AI based recognition technology, recycling machines can identify recyclable items precisely, and engineering personnel can also offer remote technical support to on-site maintenance staff.
Remote environmental monitoring system	AI based technology is deployed to allow real-time monitoring of surroundings (e.g. information on hill fire, slope and tunnel cracks and air quality) and send out alerts early.
Outdoor patrol robot	5G robots are deployed to patrol outdoor areas, monitor air quality and collect water samples.
Water birds detection counting analysis system	AI based video recognition system is deployed to detect and count water birds.
Education	
AR/VR based teaching	AR/VR technologies are deployed to support teaching to make learning more interesting.
Special education smart support system	5G robots are deployed in schools for special education to make learning more interesting to students. It will also enhance the learning and communication skills of students with special needs and allow monitoring of the safety and health of students' physical conditions and positions.
Smart farming learning platform for STEM education	A smart farming learning platform with 5G cameras, sensors and control components is deployed for supporting STEM education in school.
Culture, arts, sports and entertainment	
Remote e-sports car racing	Players are allowed to experience remote mini-car racing and enjoy the fun of e-sports.
Portable live streaming studio for fitness training	Coaches may conduct live streaming of fitness coaching anywhere to enhance the interaction

<u>Project</u>	<u>Details</u>
	between coaches and trainees.
HD live streaming system	HD live streaming through 5G is deployed at outdoor or temporary venues (e.g. of music/dancing performances, news, sports events, real-time remote examination, AR based remote travel, training in film production, mini-four-wheel drive car racing).
Remote sports trainee training system	AR glasses are worn by trainees who may read instructions given by coaches and relevant data during training.
Repair, maintenance and monitoring	
Remote repair support system	Smart glasses with 5G connection are worn by frontline staff who can seek experienced personnel's real-time remote assistance during repair of various machines.
Remote circuit board welding machine repair system	Repair staff can remotely control the machine through 5G network to repair the circuit board welding machines for clients.
Underwater drone system	5G underwater drone system is deployed for dredging engineering, maritime inspection and repair service by maintenance staff.
Agriculture, forestry and fishery	
Smart fish farming	AI based recognition technology and real-time video are deployed to monitor the fish growing conditions.
Smart farmland monitoring and management	Real-time monitoring and AI based cloud image analysis detection system is deployed to expel wildlife animals from farmland to protect crop and fishery production and improve farm management.
Design	
AR/VR based design system	AR/VR based technology is deployed to design various venues (e.g. exhibition booths, interior decoration, application of decoration materials and playgrounds) to facilitate discussion between designers and clients and design modification.
Textile	
Video conferencing system for displaying fabric samples	A portable video conferencing system equipped with lenses having 20x zoom capabilities is deployed to enable real-time display of fabric texture.

<u>Project</u>	<u>Details</u>
Telecommunications	
Radio base station (RBS) inspection by drone	High-resolution drones are deployed to conduct regular inspection of RBS.
Real time interactive indoor navigation system	5G AR indoor navigation system is deployed to assist technicians to navigate and locate the indoor telecommunication facilities for repair and maintenance.
Conference and exhibition	
AR/VR based business communications system	Portable AR/VR-based video conferencing system and 4K/hologram live streaming system are deployed for conferences, exhibitions and other temporary occasions.
Professional service	
Photogrammetry	5G technology is deployed in provision of various kinds of on-site photogrammetry at outdoor or temporary venues.
Sales and marketing	
Smart billboard	Real-time image and AI based recognition systems are deployed for the provision of various kinds of advertisements and passenger flow analysis.
Real-time online sales	Through 5G network, online product sales and promotion can be conducted for merchants via live video streaming in outdoor or temporary venues.

Strengthening the Fifth Generation Mobile (“5G”) Infrastructure by Ensuring Availability of Space in and Access to Specified New Buildings for Installation of Mobile Communications Facilities

About this Consultation Document

- This consultation document is issued by the Commerce and Economic Development Bureau (“CEDB”) to seek the views of relevant stakeholders on the Government’s proposal to strengthen the 5G infrastructure by requiring that appropriate space be made available in new buildings (as defined in paragraph 9 below) for installation of mobile communications facilities by mobile network operators.
- Views on the issues covered in this consultation document may be submitted to the CEDB on or before **27 March 2023** by any one of the following means:

By mail: Division 8
 Commerce and Economic Development Bureau
 21/F, West Wing, Central Government Offices
 2 Tim Mei Avenue, Tamar
 Hong Kong

By email: 5g_consult@cedb.gov.hk

By fax: 2351 2791

- All submissions made by the responding stakeholders will be treated as public information and may be reproduced and published in whole or in part and in any form by the CEDB for the purpose of the consultation exercise and any other purpose(s) directly related thereto, without seeking any further permission from or providing any acknowledgement of the respondents.
- Any personal data collected in the submissions received will be used and may be transferred to other relevant bodies for the purpose of the consultation exercise and any other purpose(s) directly related thereto. Unless otherwise specified, the names and affiliations of the respondents may be posted on the website of the CEDB or referred to in other documents published by the Government for the purpose of the consultation exercise and any other purpose(s) directly related thereto. Respondents may make requests for access to or correction of any personal data contained in their respective submission(s) by contacting the CEDB (see paragraph 2 above).

I. Background

A. Current Situation and Challenges

Mobile communications service is now a basic and essential utility that underpins the operation of an information society. The advent of the 5G technology has further stimulated the development of innovative commercial services and smart city applications. A good mobile communications infrastructure enabling the efficient deployment of advanced mobile communications like the 5G network is pivotal to the sustainable development of a smart economy.

2. 5G services were commercially launched in Hong Kong in April 2020. As of November 2022, the number of 5G users reached almost 4.4 million, representing about 60% of the population. The existing 5G network coverage in Hong Kong has surpassed 90% of the population, covering major locations in the urban areas and all 98 stations in the local Mass Transit Railway lines. According to the report of an international survey organisation released in June 2022¹, Hong Kong ranked third in the world in terms of 5G network coverage.

3. The Government has implemented a series of measures to promote the development of 5G services in Hong Kong, including the timely release of new spectrum in various frequency bands to the market for 5G services since 2019/2020. To facilitate the 5G network rollout of the mobile network operators (“MNOs”), the Government has launched a pilot scheme to open up about 1,500 suitable Government venues for MNOs to install radio base stations under a streamlined approval procedure and at a nominal rent of \$1 per year. A subsidy scheme is also being implemented to encourage fixed network operators (“FNOs”) to extend fibre-based networks to remote villages located in the New Territories and on outlying islands, thereby providing the basic infrastructure to support the extension of mobile coverage to these areas.

4. Despite having a 5G network coverage that is amongst the best in the world, the mobile communications service coverage in some remote regions, new development areas and old districts in Hong Kong is still less than satisfactory as compared with the third generation and fourth generation mobile services. Most of the mobile communications facilities installed by the MNOs are located in densely populated urban areas and at sites of private buildings. There is a need to facilitate access by the MNOs to private buildings for installation of mobile communications facilities to provide a comprehensive 5G network coverage across the territory and on a localised level.

¹ See the report released by Opensignal in June 2022 at :
<https://www.opensignal.com/2022/06/22/benchmarking-the-global-5g-experience-june-2022>

5. According to the existing regulatory framework under the Telecommunications Ordinance (Cap. 106) (“TO”), while FNOs are generally authorised by the Communications Authority (“CA”) to enter any land or seabed to place and maintain telecommunications lines without any payment of fee to the landowners, the grant of the CA’s authorisation to MNOs for access to private properties for radiocommunications installations is however subject to stringent criteria and the payment of a fee to the persons having a lawful interest in the land². Accordingly, in almost all cases where mobile communications facilities are installed at private properties, the MNOs wishing to gain access to such private properties may do so only through commercial agreements with the respective landowners, which are subject to a fee. These commercial negotiations are often protracted. There are also cases where there is a lack of suitable floor space or ancillary facilities (e.g. cable duct, electricity supply) in buildings for mobile communications facilities installations, or where the landowners simply refuse to negotiate with the MNOs concerned. All these factors have hindered further mobile communications facilities installations and expansion of mobile communications service coverage.

6. In order to provide ubiquitous 5G network coverage with high-speed and high-capacity data transmission to meet the demand of various innovative applications, a large number of 5G mobile communications facilities will need to be installed at different height levels and locations, including roof-tops and other locations at intermediate / lower levels of buildings (e.g. flat roof or podium floor). We note that statutory and regulatory measures have been adopted, for example, in Singapore³ to facilitate installation of mobile network equipment in buildings. With the growing importance of public mobile communications services to the daily life of people and economic development in the 5G era, there is a pressing need to enhance the access right by MNOs to enter any land which is a new building for placing their radiocommunications installations on par with that of FNOs under the TO through necessary legislative amendments and the corresponding changes to relevant planning and building guidelines / practice

² The criteria are provided for in section 14(1A) and (1B) of the TO, which include, among others, that the radiocommunications installation is to be placed or maintained for the purpose of providing a radiocommunications service to a public place, that the CA is satisfied that the authorisation to be granted to the MNO concerned is in the public interest, that consideration has to be given by the CA as to: (i) whether an alternative location can be reasonably utilized for placing the radiocommunications installation to which the authorization, if granted, will relate; (ii) whether or not there are technical alternatives to the installation; (iii) whether or not the utilization of the land to which the authorization, if granted, will relate is critical for the supply of the service by the MNO seeking the authorization; and (iv) whether or not that land has available capacity to be so utilized 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 MNO concerned and the public of the alternatives, if any, referred to in (ii) above, and that the CA has to give a reasonable opportunity to the persons having a lawful interest in the land concerned and to the MNO concerned to make representations and has to consider all representations made before it decides whether or not to grant the authorization. The requirement of payment of a fee is provided for in section 14(2)(ii) of the TO.

³ The Code of Practice for Info-communication Facilities in Buildings (“COPIF”), issued by the Info-communications Media Development Authority of Singapore pursuant to the Telecommunications Act, requires building owners to make available a minimum amount of space specified in the COPIF to mobile telecommunication licensees on a rent-free basis for installation of mobile equipment.

notes, etc.

B. Radiation Safety

7. There is an established mechanism under the existing regulatory regime to ensure that the increasing number of mobile communications facilities to be installed in buildings will not pose radiation safety risk. MNOs are required to strictly comply with the non-ionising radiation limits set by the International Commission on Non-ionizing Radiation Protection to obtain approval from the CA for mobile communications facilities applications. Furthermore, the Office of the Communications Authority (“OFCA”) will conduct from time to time sample checks on the radiation levels of approved mobile communications facilities so as to safeguard public health. Upon request by members of the public, OFCA will conduct site inspections and measurements of radiation level, and will explain the measurement results. The CA will also consult the Department of Health and obtain its professional advice from time to time in order to keep abreast of the latest development of the radiation safety standards.

II. Proposal

8. Against the above background, the Chief Executive announced in the 2022 Policy Address the Government’s plan to amend the legislation to ensure that appropriate space is made available in new buildings (as defined in paragraph 9 below) for installation of mobile communications facilities by relevant telecommunications operators. This proposal will be conducive to expanding 5G network coverage which is critical to Hong Kong’s development into a smart city. We would like to seek views and comments from relevant stakeholders on our proposal with broad details as set out in the ensuing paragraphs.

A. Proposed Space Requirements

Scope

9. The proposal will apply to new buildings with general building plan (建築圖則) or major revision of such plan approved by the Building Authority on or after six months from the commencement date of the legislative amendments elaborated in paragraph 13 below (“New Buildings”)⁴. For other new buildings not in private ownership (e.g. government buildings), OFCA will follow up with relevant departments to ensure that similar spatial requirements can be enforced

⁴ This arrangement is proposed with reference to paragraph 11 of *Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers APP-84 on “Access Facilities for Telecommunications and Broadcasting Services”* (“Practice Note”) issued by the Buildings Department (<https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP084.pdf>)

as soon as the *Code of Practice for the Provision of Access Facilities in Buildings for the Provision of Mobile Communications Services* (see paragraphs 14 to 15 below) is promulgated.

Size of the Telecommunications and Broadcasting Equipment Room and Related Facilities

10. To implement the proposal, appropriate floor space shall be made available in New Buildings for the installation of mobile communication facilities by MNOs, save with exemption because of small size or being in a development comprising multiple buildings (see paragraph 11 below). The spatial requirements for installation of mobile communications facilities in New Buildings are proposed below:

- (a) Space in the **telecommunications and broadcasting equipment room**, with a minimum area of 10 to 20 square metres and a minimum clear height of 2.8 metres;
- (b) Space on the **rooftop** of the building, with a minimum area of 10 to 20 square metres; and
- (c) Where applicable, space on **an intermediate / lower level of a building** (e.g. flat roof or podium floor), with a minimum area of 10 to 20 square metres and a minimum clear height of 2.8 metres.

Exact spatial requirements will be finalised taking into account views collected from this consultation exercise.

Small New Buildings and Property Development of Multiple Buildings

11. Taking into account that some New Buildings may be very small in terms of size and/or low in height, the Government will consider exempting those New Buildings not meeting a specified threshold in size and/or height or on a case by case basis from the requirements to reserve space and provide associated access facilities inside the buildings or on rooftops for mobile communications facilities. The Government will consider specifying the spatial requirements mentioned in paragraph 10 above at different scales with reference to New Buildings meeting different thresholds. For a new property development of multiple buildings, only a portion of the buildings will be subject to the spatial requirements. The exemption threshold for small New Buildings which will be waived from complying with the spatial requirements for the installation of mobile communications facilities will be finalised taking into account views collected through this consultation exercise.

Exemption from Gross Floor Area

12. Pursuant to regulation 23(3)(b) of the Building (Planning) Regulations (Cap. 123F) (“B(P)R”), in determining the gross floor area (“GFA”) for the purposes of regulations 20, 21 and 22 of the B(P)R, the Building Authority may disregard any floor space that he is satisfied is constructed or intended to be used solely for, inter alia, access facilities for telecommunications and broadcasting services. The Government proposes that the GFA of access facilities for mobile communications services in New Buildings be so disregarded under regulation 23(3)(b).

B. Amendments to the Legislation and Administrative Guidelines

Amendments to the TO

13. It is proposed that section 14 of the TO be amended to the effect that MNOs may be authorised by the CA to enter New Buildings for placing, maintaining or inspecting (as the case may be) radiocommunications installations, without being subject to the criteria currently applicable to the authorisation to be granted by the CA under section 14(1A) of the TO, and the requirement to pay a fee to the persons having a lawful interest in the land under section 14(2)(ii) of the TO. In other words, MNOs may be authorised to access New Buildings for radiocommunications installations in a similar manner as that currently applicable to FNOs for access to land or seabed for placement and maintenance of telecommunications lines under section 14(1) of the TO.

Administrative Amendments: Issue / Amendments of the Relevant Guidelines / Code of Practice / Practice Note

By the CA

14. Following the arrangements for the provision of other utilities in New Buildings and to supplement the proposed legislative amendments mentioned in paragraph 13 above, the CA will issue a *Code of Practice for the Provision of Access Facilities in Buildings for the Provision of Mobile Communications Services* (“Mobile CoP”) which is a voluntary guideline to be followed by developers. The Mobile CoP will set out the standard and minimum requirements to facilitate developers in the provision of the facilities in each of the New Buildings for the installations of mobile communications facilities by MNOs, including accommodation for MNOs’ radiocommunications equipment and other access facilities like ducts / risers / trunkings for carrying the cables, etc.

15. The Mobile CoP will also require MNOs to use the space efficiently and adopt mobile network sharing (including but not limited to antenna sharing) as far as practicable and technically feasible in order to minimise the number of

antennae and size of equipment which need to be installed in New Buildings. MNOs are also required to ensure the matching of the aesthetic design of antennae and other outdoor installations with New Buildings with a view to minimising any negative visual impact arising from such installations.

16. Where necessary, the CA may also issue guidelines and/or information note to provide guidance and information to the incorporated owners and/or building management offices to facilitate the installation works by all relevant MNOs and make available the space to the MNOs on a non-discriminatory basis.

By Government Departments

17. Along with the issue of the Mobile CoP by the CA, the Buildings Department will update the current Practice Note that it has issued pursuant to regulation 28A of the B(P)R to specify the design and associated requirements that will mirror those in the Mobile CoP for developers to provide access facilities in New Buildings for installation of mobile communications facilities by MNOs.

18. At present, installation of radiocommunications equipment by an MNO in a private residential or non-commercial building for provision of mobile communications services serving customers outside the building requires a waiver issued by the Lands Department (“LandsD”) since such installation of radiocommunications equipment is considered to be commercial in nature. To dovetail with the legislative amendments, for new leases to be granted, suitable clauses will be inserted to allow LandsD to permit and exempt such feature from the calculation of GFA together with appropriate conditions to be added to ensure that such space will be properly used. LandsD will also make appropriate provisions in new leases such that application for waiver on a case by case basis will no longer be required in the future.

III. Way Forward

19. CEDB will examine the views collected carefully in finalising the proposed legislative amendments. We aim to introduce the relevant Amendment Bill into the Legislative Council within 2023.

**Commerce and Economic Development Bureau
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