

Public consultation on assignment arrangements of spectrum in 26 GHz and 28 GHz bands launched

The Secretary for Commerce and Economic Development (SCED) and the Communications Authority (CA) today (July 26) jointly launched a public consultation on the proposal to administratively assign 4 100 MHz of spectrum in the 26 GHz (24.25 – 27.5 GHz) and 28 GHz (27.5 – 28.35 GHz) bands for the provision of public mobile services including fifth generation (5G) mobile services, and the proposed arrangements for charging spectrum utilisation fee (SUF).

The CA also announced an updated Spectrum Release Plan for 2018 – 2020 where an additional 200 MHz of spectrum below 6 GHz would be made available for the provision of 5G services.

"Together with the 200 MHz of spectrum in the 3.5 GHz band announced earlier, a total of 4 500 MHz of new spectrum in multiple frequency bands will be made available for use in 2019/2020 for the provision of 5G services, which amounts to eight times the existing 552 MHz of spectrum assigned for the provision of public mobile services. This makes Hong Kong the first economy in the world to release such a significant amount of spectrum to support the development of 5G services. Hong Kong will be well placed to launch a new generation of telecommunications services, to capture new market opportunities and to facilitate innovative smart city applications powered by 5G services," a spokesman for the CA said.

26 GHz and 28 GHz bands

"Taking into account the ample supply of spectrum in the 26 GHz and 28 GHz bands, the technical characteristics of these high frequency bands and the feedback from the industry in response to an earlier invitation for expression of interest, we take the view that there are unlikely to be competing demands for spectrum in these bands. We consider it appropriate to assign the spectrum concerned administratively," the spokesman continued.

"The new spectrum can provide sufficient bandwidth for delivery of ultra high speed mobile data transmission up to 20 gigabits per second and be deployed for service provision in any locations in Hong Kong," the spokesman added.

The 26 GHz and 28 GHz bands are the lowest millimetre-wave bands supported by the 5G standard announced last month. It is expected that 5G standard compliant equipment and devices operating in these bands will gradually be available in the market next year. To enable early launch of 5G services in Hong Kong, the CA proposes to allocate the entire 26 GHz and 28 GHz bands to mobile service on a co-primary basis with fixed service and

fixed satellite service (Earth-to-space) with effect from April 1, 2019, by which time the existing assignments in the 26 GHz band will be vacated.

The CA also proposed that among the 4 100 MHz of spectrum in the 26 GHz and 28 GHz bands, 3 300 MHz to 3 700 MHz of spectrum will be assigned for the provision of large-scale public 5G services in Hong Kong and each operator will be assigned not more than 800 MHz of spectrum. The remaining 400 MHz to 800 MHz of spectrum in the two frequency bands is proposed for assignment to entities interested in providing 5G services in specified geographical locations with the use of the spectrum on a shared basis, such as in university campuses, industrial estates, technology parks or the airport. Each operator will be assigned not more than 400 MHz of spectrum. The sharing arrangement aims to widen the scope of 5G services, increase the choice of service suppliers, and facilitate the development of innovative 5G applications.

On the SUF, a spokesman for the Commerce and Economic Development Bureau (CEDB) said, "In view that the CA proposes to administratively assign the spectrum in the 26 GHz and 28 GHz bands, SCED proposes not to charge any SUF if less than 75 per cent of the spectrum in these frequency bands has been assigned or occupied.

"A SUF will be chargeable only if the frequency bands become congested (i.e. 75 per cent or more occupied) and are anticipated to become more congested in the future."

Making reference to other SUF levied under the existing SUF charging scheme for spectrum assigned administratively, SCED proposes to set the level of SUF at \$21,600 per MHz per annum for spectrum to be assigned for provision of large-scale public 5G services; and at \$1,080 per MHz per annum for specified geographical location services if the 75 per cent threshold is reached.

The consultation paper can be downloaded from the websites of the CA and the CEDB at the links below:

www.coms-auth.hk/filemanager/en/content_711/cp20180726_e.pdf

www.cedb.gov.hk/ccib/eng/paper/pdf/cp20180726_e.pdf.

Views from the industry and other stakeholders are welcome on or before August 22, 2018. After taking into account the views and comments received in response to the public consultation, SCED and the CA aim at finalising their respective decisions and inviting applications for assignment of spectrum in the 26 GHz and 28 GHz bands by the end of 2018, so that the spectrum can be deployed for the provision of 5G services starting from April 1, 2019.

Additional 5G spectrum below 6 GHz

The CA also announced the release of an additional supply of 200 MHz of spectrum for public mobile services. This spectrum is in the 4.9 GHz band (4.83 – 4.93 GHz band) (for territory-wide use) and the 3.3 GHz band (3.3 – 3.4 GHz band) (limited to indoor use). Both frequency bands are suitable for

providing extensive coverage of public mobile services, including 5G services, in Hong Kong.

The updated Spectrum Release Plan for 2018 – 2020 can be downloaded from the CA's website (www.coms-auth.hk/filemanager/en/content_613/spectrum_plan2018_en.pdf).

Meanwhile, SCED and the CA plan to conduct another public consultation in the third quarter of 2018 on the proposed arrangements for the allocation and assignment of the spectrum in the 3.3 GHz and 4.9 GHz bands, as well as for charging SUF. Spectrum in these new frequency bands is expected to be available for assignment around mid-2019.