

# 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](http://www.coms-auth.hk/filemanager/en/content_711/cp20180726_e.pdf)

[www.cedb.gov.hk/ccib/eng/paper/pdf/cp20180726\\_e.pdf](http://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

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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](http://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.

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## **Employers and employees should take precautions against heat stroke**

As the Hong Kong Observatory has issued the Very Hot Weather Warning, the Labour Department (LD) reminds employers and employees to take appropriate precautions to prevent heat stroke when working in a hot or humid environment.

Heat stroke may occur if an employee works in a hot or humid environment for prolonged periods of time, as the body may fail to regulate its temperature by effective heat dissipation through sweating.

The early symptoms of heat stroke include feeling thirsty, fatigue, nausea and headache. Later, the victim may experience shortness of breath, rapid and weak pulse, dizziness, confusion or even loss of consciousness and convulsion.

For example, construction workers, cleaning workers, kitchen workers and porters are more prone to heat stroke when working for long hours in such an environment, especially if appropriate preventive measures have not been taken.

The LD reminds employers to arrange for a suitable assessment of the risk of heat stress in the work environment and take appropriate preventive measures. The LD has produced two leaflets entitled "Checklist for Heat Stress Assessment at Construction Sites" and "Checklist for Heat Stress Assessment at Outdoor Cleansing Workplaces" respectively. Employers engaged in construction or outdoor cleaning work are advised to refer to these checklists in assessing the risk of heat stress at their workplaces. As for heat stress assessment at a workplace in general, employers can refer to a booklet entitled "Risk Assessment for the Prevention of Heat Stroke at Work"

produced by the LD.

The LD also reminds employers and employees to take the following precautions to prevent heat stroke:

#### Employers

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- (1) Take heed of the weather report and adopt shift work arrangements for employees to reduce their exposure to the hot environment, or arrange appropriate rest breaks for them during very hot periods;
- (2) Avoid working under direct sunlight and set up temporary sunshade wherever possible;
- (3) Provide cool potable water for employees at all times during work. If necessary, provide drinks containing minerals for employees to replenish loss of electrolytes during profuse sweating;
- (4) Minimise physical demands by using tools or mechanical aids at work;
- (5) Increase air flow by enhancing ventilation or air-conditioning as appropriate;
- (6) Isolate heat-generating facilities at the workplace and use insulating materials to minimise heat dissipation to the other work areas; and
- (7) Provide relevant information and training for employees on heat stroke such as preventive measures and first aid treatment.

#### Employees

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- (1) Wear clothing made of suitable materials (for example, cotton) that is loose-fitting and light-coloured to help heat dissipation, minimise heat absorption and allow sweat evaporation;
- (2) Wear a wide-brimmed hat when working outdoors;
- (3) Drink plenty of water or other appropriate beverages to replenish the fluids and electrolytes lost through sweating; and
- (4) Whenever there are any symptoms of heat stroke, inform supervisors and take appropriate actions immediately.

Some employees may have difficulty in adapting to a hot working environment owing to their own health conditions. Employers should take this into account and consider the recommendations of their doctors when assigning work to these employees.

In addition to the publications on risk assessment, the LD has produced a leaflet entitled "Prevention of Heat Stroke at Work in a Hot Environment" for the public. The publications can be obtained free of charge from the offices of the Occupational Health Service of the LD, or downloaded from the department's webpage at [www.labour.gov.hk/eng/public/content2\\_9.htm](http://www.labour.gov.hk/eng/public/content2_9.htm).

The LD organises occupational health talks in public places and at its own training venues regularly to raise employers' and employees' awareness of occupational health. Details of health talks on the prevention of heat stroke at work in a hot environment in July to September are as follows:

(A)

Dates: August 2, 13 and 30; and September 13 and 24 (am)  
July 30; August 8 and 22; and September 5, 20 and 27 (pm)  
Time: Half-day  
Venue: Occupational Safety and Health Training Centre of the Labour Department, 13/F, Kolour-Tsuen Wan I, 68 Chung On Street, Tsuen Wan, New Territories

(B)

Dates: July 27 and August 10 and 20  
Time: Half-day, morning  
Venue: Occupational Safety and Health Centre of the Labour Department, G/F, Kwun Tong Community Health Centre Building, 60 Hip Wo Street, Kwun Tong (MTR Kwun Tong Station Exit A1)

(C)

Date: August 13  
Time: 3pm to 4.30pm  
Venue: Lecture Hall, Hong Kong Space Museum, 10 Salisbury Road, Tsim Sha Tsui, Kowloon (MTR Tsim Sha Tsui Station Exit E)

(D)

Date: September 14  
Time: 3pm to 4.30pm  
Venue: Activity Room I, Hong Kong Central Library, 66 Causeway Road, Causeway Bay, Hong Kong (Opposite Victoria Park, MTR Tin Hau Station Exit B)

For enrolment or enquiries about these occupational health talks, please call 2852 4040 or 2361 8240 (for talks organised at the Occupational Safety and Health Centre). Moreover, the LD also provides an outreach health education service and occupational health nurses will, on invitation, disseminate occupational health information at workplaces at a convenient time. Please contact the nursing officer at 2852 4062 for details. All these health talks are free of charge.

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## **August 2018 adjustment in ceiling prices for dedicated LPG filling stations**

The Electrical and Mechanical Services Department today (July 26) announced an adjustment to the auto-LPG (liquefied petroleum gas) ceiling prices for dedicated LPG filling stations from August 1 to August 31, 2018, in accordance with the terms and conditions of the contracts of the dedicated LPG filling stations.

A department spokesman said that the adjustment on August 1, 2018, reflects the movement of the LPG international price in July 2018. The adjusted auto-LPG ceiling prices for dedicated LPG filling stations will range from HK\$3.5 to HK\$4.04 per litre, representing an increase of HK\$0.02 to HK\$0.03 per litre.

The spokesman said that the auto-LPG ceiling prices were adjusted according to a specified pricing formula. The formula comprises two elements – the LPG international price and the LPG operating price. The LPG international price is the LPG international price of the preceding month. The LPG operating price is adjusted on the first day of February every year according to the movement in the Composite Consumer Price Index in the previous year.

The auto-LPG ceiling prices for respective dedicated LPG filling stations in August 2018 are as follows:

Location of Dedicated LPG Filling Station	Auto-LPG Ceiling Price in August 2018 (HK\$/litre)	Auto-LPG Ceiling Price in July 2018 (HK\$/litre)
Fung Yip Street, Chai Wan	4.04	4.01
Ngo Cheung Road, West Kowloon	4.04	4.01
Sham Mong Road, Mei Foo	3.71	3.69
Yip Wong Road, Tuen Mun	3.71	3.69
Marsh Road, Wan Chai	3.71	3.68
Fung Mat Road, Sheung Wan	3.64	3.61
Wai Lok Street, Kwun Tong	3.64	3.61
Yuen Chau Tsai, Tai Po	3.64	3.61
Cheung Yip Street, Kowloon Bay	3.68	3.66
Kwai On Road, Kwai Chung	3.68	3.66
Hang Yiu Street, Ma On Shan	3.50	3.48
Tak Yip Street, Yuen Long	3.50	3.48

The spokesman said that the details of the LPG international price and the auto-LPG ceiling price of each dedicated LPG filling station have been uploaded to the department website [www.emsd.gov.hk](http://www.emsd.gov.hk). They are also posted at dedicated LPG filling stations to enable the trades to monitor the price adjustment.

Details of the pricing adjustment mechanism for dedicated LPG filling stations can also be viewed under the "What's New" section of the department website at [www.emsd.gov.hk/en/what\\_s\\_new/current/index.html](http://www.emsd.gov.hk/en/what_s_new/current/index.html).

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## **CHP reminds public on precautions against heat stroke during very hot weather**

The Centre for Health Protection (CHP) of the Department of Health (DH) today (July 26) reminded members of the public, particularly those undertaking outdoor activities, to take heed of necessary measures against heat stroke and sunburn in very hot weather.

"The public should carry and drink plenty of water to prevent dehydration while engaging in outdoor activities," a spokesman for the CHP said.

"Those engaged in strenuous outdoor activities should avoid beverages containing caffeine, such as coffee and tea, as well as alcohol, as they speed up water loss through the urinary system," the spokesman explained.

"The obese, the sick, including those with heart disease or high blood pressure, the old and the young are more vulnerable to heat-related illnesses. They should pay special attention," the spokesman added.

The public should adopt the following precautions:

- Wear loose and light-coloured clothing to reduce heat absorption and facilitate sweat evaporation and heat dissipation;
- Avoid vigorous exercise and prolonged activities like hiking or trekking as heat, sweating and exhaustion place additional demands on the physique;
- Perform outdoor activities in the morning or late afternoon;
- For indoor activities, open all windows, use a fan or use air-conditioning to maintain good ventilation; and
- Reschedule work to cooler times of the day.

If working in a hot environment is inevitable, introduce shade in the workplace where practicable, and start work slowly and pick up the pace gradually. Get into a cool area for rest at regular intervals to allow the body to recuperate.

The public should also note the latest and the forecast Ultraviolet (UV) Index released by the Hong Kong Observatory (HKO). When the UV Index remains

high (6 or above):

- Minimise direct exposure of the skin and the eyes to sunlight;
- Wear loose long-sleeved clothing made of close-woven fabrics;
- Wear a wide brim hat or use an umbrella;
- Seek a shaded area or put on UV-blocking sunglasses;
- Apply a broad-spectrum sunscreen lotion with a sun protection factor (SPF) of 15 or above. Apply liberally and reapply after swimming or sweating; and
- While using DEET-containing insect repellents for personal protection against mosquito-borne diseases, apply sunscreen first, then insect repellent.

If symptoms develop, such as dizziness, headache, nausea, shortness of breath or confusion, rest and seek help immediately, and seek medical advice as soon as possible.

The public may get more information from the DH's health education hotline (2833 0111), [heat stroke](#) page and [UV radiation](#) page; the HKO's Dial-a-Weather (1878 200), latest [weather and forecast](#), [UV Index](#) and weather information for [hiking and mountaineering](#); and [press releases](#) of the Labour Department on precautions against heat stroke for outdoor workers and their employers when the Very Hot Weather Warning is in force.

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## [Assess the risk of heat stroke to employees](#)

Attention duty announcers, radio and TV stations:

Please broadcast the following special announcement immediately, and repeat it at frequent intervals when the Very Hot Weather Warning is in force:

The Labour Department reminds employers that as the Very Hot Weather Warning is in force, they should assess the risk of heat stroke to their employees and adopt effective preventive measures such as providing cool drinking water, setting up temporary sunshade and providing mechanical aids to reduce physical exertion of employees. Employees should drink water regularly and be mindful of their physical condition. If early heat stroke symptoms such as headache and thirst appear, they should inform their supervisors and seek medical help immediately.