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Panel on Information Technology and Broadcasting

Meeting on 8 February 2021

**Background brief on
television broadcast frequency channel migration arrangements**

Purpose

This paper sets out background information on the television ("TV") broadcast frequency channel migration after analogue switch-off ("ASO"), and summarizes the views and concerns expressed by members of the Panel on Information Technology and Broadcasting ("the Panel") in previous discussion.

Background

2. Analogue TV and digital terrestrial television ("DTT") services were broadcast in Hong Kong via the spectrum within the frequency range of 470 – 806 MHz (also known as "the broadcast band"). After the switch-off of analogue TV services on 30 November 2020, only the lower part of the broadcast band (i.e. 470 – 614 MHz band) remained to be used for supporting broadcasting services. The upper part (i.e. 614 – 806 MHz band) is intended to be re-allocated mainly for mobile telecommunications services. According to the Communications Authority ("CA")'s notice served on the relevant broadcasters in July 2019, all TV channels occupying the upper part of the broadcast band should be migrated to the lower part by 30 November 2021, thereby making available a maximum of 160 MHz of spectrum in the 600/700 MHz bands mainly for public mobile services. To avoid interruption to the viewing of DTT services by the general public, simulcasting the DTT signals at both the existing and new TV frequency channels will be implemented between April and November 2021.

3. As stated in the Administration's paper on ASO dated 11 February 2019 ([File Ref: CCIB/A 200-10-40/1\(C\)](#)), for the vacated spectrum to be usable in

Hong Kong for high value-added mobile telecommunications services, it would require that the deployment of spectrum in Hong Kong and the Mainland (in particular Guangdong Province) post-ASO would not cause mutual radio interference with each other over the boundary. In March 2020, the Administration informed members that the discussion between the Mainland authorities and the Office of the Communications Authority ("OFCA") on the co-ordination in the use of spectrum was still on-going.

Previous discussions

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4. At the meetings held on 18 February 2019 and 20 April 2020, the Panel discussed with the Administration the arrangements of ASO and the implementation of full digital TV broadcast in Hong Kong.

Cost of channel migration

5. Members noted that according to the trade, the cost of relocating DTT frequency channels in the specified broadcast band was higher than expected. They enquired whether the Administration would bear the cost of channel migration for the relevant TV broadcasters, pointing out that the trade was experiencing hard times under the coronavirus disease-2019 pandemic, and that the Administration would be able to receive a large sum of spectrum utilization fees from new users of the vacated bands after ASO.

6. The Administration advised that it had received similar request from the trade and was considering the matter. Nonetheless, domestic free TV programme service licensees ("free TV licensees") should, as a matter of principle, be responsible for providing and maintaining the transmitting facilities for the provision of broadcasting services and bear the associated costs.

Public consultation on the use of the vacated spectrum

7. Members had previously asked whether the Administration would consult the public and the telecommunications sector on the use of the 160 MHz of the vacated spectrum, and how it would ensure that the planned use of the vacated spectrum would proceed at the earliest opportunity. The Administration advised that OFCA would conduct public consultation on the use of the 160 MHz of vacated spectrum in the 600/700 MHz bands in accordance with the established practice. The reassignment of spectrum for indoor mobile services could proceed without being affected by the progress in the coordination with the Mainland on the use of the 470 – 806 MHz band over the border.

Television broadcast reception problems

8. Some members asked whether DTT service in Hong Kong would cover the whole population in future and how DTT reception problems in certain areas could be tackled. The Administration explained that, while OFCA and free TV licensees would continue to explore feasible and cost-effective ways to extend the coverage of their DTT networks, given the hilly terrain in Hong Kong, a 99% DTT coverage, which covered most of the densely populated urban areas, was considered satisfactory.

9. As regards reception problems, the Administration explained that the quality of signals might vary according to the settings of the digital TV set or digital set-top box in the residence, the conditions of the in-building transmission apparatus and other environmental factors. In densely developed urban areas, high-rise buildings might also block TV signals from reaching their neighbouring old buildings. In response to complaints or enquiries related to TV reception problems, OFCA would conduct on-site signal measurements and offer technical advice to the residents concerned on a case-by-case basis and refer the cases to TV broadcasters for follow-up whenever appropriate.

Latest position

10. The Administration will brief the Panel on 8 February 2021 on the arrangements for TV broadcast frequency channel migration after ASO.

Relevant papers

11. A list of the relevant papers is set out in the **Appendix**.

List of relevant papers

Meeting	Meeting date	Paper
Panel on Information Technology and Broadcasting	18 February 2019	<p>Legislative Council Brief on Digital Terrestrial Television - Analogue Switch-off issued by the Commerce and Economic Development Bureau on 11 February 2019 File Ref.: CCIB/A 200-10-40/1(C)</p> <p>Paper on the implementation of digital terrestrial television broadcasting in Hong Kong prepared by the Legislative Council Secretariat (Background brief) LC Paper No. CB(1)564/18-19(05)</p> <p>Minutes of meeting LC Paper No. CB(1)838/18-19</p>
Panel on Information Technology and Broadcasting	20 April 2020	<p>Administration's paper on the implementation of full digital television broadcast LC Paper No. CB(1)452/19-20(01)</p> <p>Paper on the implementation of full digital television broadcast prepared by the Legislative Council Secretariat (Background brief) LC Paper No. CB(1)452/19-20(02)</p> <p>Minutes of meeting LC Paper No. CB(1)717/19-20</p>