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Panel on Information Technology and Broadcasting

Meeting on 16 March 2020

Background brief on the implementation of full digital television broadcast

Purpose

This paper sets out the background of the Administration's plan to switch off analogue television service (or "ASO" in short) following the implementation of digital terrestrial television ("DTT") broadcasting, and summarizes the relevant views and concerns expressed by members of the Panel on Information Technology and Broadcasting ("the Panel") at a previous discussion .

Background

2. Amid a worldwide trend to gradually move away from analogue television ("TV") broadcasting to DTT broadcasting for better picture quality and spectrum-efficiency, the Administration conducted a review in 2018 to assess the two outstanding factors¹ behind Hong Kong's readiness for ASO. Having assessed the DTT penetration (i.e. the percentage of households able to receive DTT services) in Hong Kong and the progress of frequency coordination with the Mainland, the Administration considered that the public would be largely prepared for ASO at end-2020 and the schedule would appropriately coincide with that in the Mainland. More specifically, the Administration had been coordinating with the Mainland authorities on their respective post-ASO deployment of the vacated spectrum in the 470-806 MHz band to avoid mutual interference, and Hong Kong had been allowed to initially use 20 MHz of the spectrum concerned for outdoor mobile telecommunications services, while

¹ Another factor of Hong Kong's readiness for the switch-off of analogue television ("TV") services was digital terrestrial television ("DTT") network coverage which had already reached at least 99% of the local population by September 2013, on a par with that of analogue TV.

engaging in a further dialogue with the Mainland asking for more spectrum for outdoor deployment in Hong Kong.

3. On 29 January 2019, the Chief Executive in Council ordered that ASO would proceed on 30 November 2020 at 11:59 pm and full digital TV broadcast should start at 00:00 am on 1 December 2020. All five current analogue TV channels² would be switched off, while the broadcast of these channels in digital format would remain in service alongside the seven other digital channels unaffected by ASO.

Making use of the vacated spectrum

4. According to the Administration, both analogue TV and DTT services in Hong Kong operate in the 470-806 MHz band, which is the UHF band allocated by the International Telecommunication Union primarily for TV broadcasting services worldwide. After ASO, free TV licensees and Radio Television Hong Kong will be required to relocate their TV frequency channels in the 614-806 MHz band to the 470-614 MHz band, thereby vacating the 600/700 MHz bands. Frequency coordination regarding the post-ASO deployment of spectrum in the 470-806 MHz band has also been underway between Hong Kong and the Mainland (in particular Guangdong Province) to avoid mutual radio interference across the boundary. Subject to the vacation of the 600/700 MHz bands and the frequency coordination with the Mainland on the use of the frequency bands concerned, the Administration plans to release a maximum of 160 MHz of spectrum in the 600/700 MHz bands mainly for indoor mobile services³ in Hong Kong. The Administration plans to conduct a public consultation exercise in 2020 on the assignment of the 160 MHz of spectrum, which is preliminarily expected to be available for use from the fourth quarter of 2021 the earliest.

The Community Care Fund Digital Television Assistance Programme

5. To help households in need who are still receiving analogue TV broadcast to access local free TV programmes after ASO, the Administration launched the Community Care Fund Digital Television Assistance Programme ("the Programme")⁴ on 14 January 2020. The Programme, administered by the

2 The five channels are "RTHK TV 31A", "RTHK TV 33A", "Hong Kong Open TV", "Jade" and "Pearl".

3 Because of its good radio propagation and indoor penetration characteristics, the Administration plans to deploy the 160 MHz of the vacated spectrum mainly for providing indoor mobile services, especially in congested or high traffic indoor mobile hotspots. At least 20 MHz of spectrum in the 700 MHz band can be used for outdoor deployment as well.

4 The Community Care Fund Digital Television Assistance Programme was originally referred to as the DTT Assistance Scheme when it was first introduced by the Administration in February 2019.

Hong Kong Council of Social Service, targets to subsidize an estimated 160 000 eligible households (out of 180 000 analogue TV households) replacing their analogue TV sets with a basic model digital TV set, or adding a "set-top" box, with the \$450 million the Programme secured from the Community Care Fund ("CCF"). To keep the application procedures simple, the eligibility of the Programme is tied to existing means-tested Government assistance programmes.

Previous discussion

Panel on Information Technology and Broadcasting

6. At the meeting held on 18 February 2019, the Panel discussed the Administration's proposal of implementing ASO in Hong Kong in end-2020.

The Community Care Fund Digital Television Assistance Programme

7. Members queried why some 20 000 analogue TV households would be ineligible for the Programme. The Administration explained that the Programme was designed to help those in need. Some households could well afford to buy digital TV sets or set-top boxes but had not done so for various other reasons.

8. Members also expressed concerns on whether the application procedures and arrangements of the Programme would be onerous. The Administration reassured members that the application procedures would be kept simple. Affected TV households would have 21 months to switch to digital TV services at their own pace from the date of the announcement of ASO which is 29 January 2019. Meanwhile, the Administration would work out details of the Programme and enlist the support of suitable NGOs, making use of their wide service network in the community to implement the Programme.

9. Some members enquired what qualified for a "basic model digital TV set" under the Programme (paragraph 5), and whether a household in need without a TV set could benefit from the Programme. The Administration advised that the Programme primarily aimed at helping analogue TV households in need. The CCF Task Force and Commission on Poverty would be consulted on the implementation details, including the specification of a "basic model digital TV set". As regards households without any TV set, the Administration advised that they might seek assistance from charity programmes that gave away refurbished TV sets to people in need.

Future use of the vacated spectrum

10. Members asked whether the Administration would consult the public and the telecommunications sector on the use of the 160 MHz of the vacated spectrum (paragraph 4), and how it would ensure that the planned use of the vacated spectrum would proceed at the earliest opportunity. The Administration advised that the Office of the Communications Authority 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. Meanwhile, as the 160 MHz of spectrum in the 600/700 MHz bands vacated after ASO would be re-assigned for indoor mobile services initially, the reassignment of spectrum could proceed on its own without being affected by the progress in the coordination with the Mainland on the use of the 470-806 MHz band over the border.

Catching up on full digital terrestrial television broadcast

11. Members expressed concerns that while Japan and Taiwan had already fully switched to DTT broadcasting in as early as 2011 or 2012, there were still pockets of area in Hong Kong where people could not receive DTT signals. Members queried whether Hong Kong was behind world trend in DTT broadcasting. The Administration considered it appropriate to implement ASO in Hong Kong in late 2020. With the DTT coverage reaching 99% and the DTT penetration rate at about 88%, implementing ASO in 2020 would cause minimal impact to the public. Such a schedule would also avoid leaving the vacated spectrum idle after ASO. As regards the DTT coverage issue at certain pockets of area, the Administration encouraged the public to report any reception issue to the authority for follow-up.

Latest position

12. The Administration will brief the Panel on 16 March 2020 on the progress of the implementation of full digital television broadcast in Hong Kong.

Relevant papers

13. 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 (Updated 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>
Special Finance Committee	10 April 2019	<p>Administration's replies to Members initial written questions (Reply Serial Nos. CEDB(CCI)002, CEDB(CCI)026 and CEDB(CCI)049)</p>