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DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY

Electronic Communications Networks and Services
Radio Spectrum Policy

Brussels,
CNECT.B.4/AG

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Subject: Additional input regarding the impact of the WRC-19 outcome on the harmonised technical conditions for the 26 GHz band

Dear Chris,

The last Radio Spectrum Committee (RSC) meeting of 11 December 2019 considered the outcome of WRC-19 regarding the out-of-band emission limits applicable to wireless broadband systems (including 5G) within the 24.25-27.5 GHz ('26 GHz') frequency band for the protection of the EESS (passive) in the 23.6-24 GHz 'passive' frequency band. The limits agreed in the revised Radio Regulations differ from the current limits at Union level pursuant to Commission Decision (EU) 2019/784. The Commission presented a scene-setting document to facilitate the discussions (RSCOM19-47).

Member States and the Commission considered the relevant Union policy priorities for protecting passive satellite systems used for earth surface and climate monitoring in the 23.6-24 GHz band (such as Copernicus), and for 5G rollout in the 'pioneer' 26 GHz band. The RSC agreed on the need to amend the Commission Implementing Decision urgently, in order to preserve regulatory certainty for the single market so that Europe may capitalise on the global economies of scale for 5G equipment.

This amendment should focus solely on taking into account the global protection limits agreed at WRC-19, while safeguarding adequate protection of the passive EESS. Firstly, it is anticipated that current equipment could operate at the lower edge of the 26 GHz band (24.25 GHz) and still meet the temporary out-of-band emission limits¹ (agreed at

¹ The out-of-band emission limits (or "limits of unwanted emission power") for 5G equipment for the protection of the EESS (passive) band 23.6-24 GHz are laid down in the revised Resolution 750 of the provisional final acts of WRC-19 and correspond to the additional baseline power limits in Commission Decision (EU) 2019/784 (s. Tables 4 and 6 of the Annex)

WRC-19 until 1 September 2027) of -33 dBW/200 MHz (base stations) and -29 dBW/200 MHz (terminal stations)². Secondly, it is assumed that, in order for current equipment to meet the long-term out-of-band emission limits (agreed at WRC-19 as of 1 September 2027) of -39 dBW/200 MHz (base stations) and -35 dBW/200MHz (terminals stations), it could be used **only together with a guard band** starting from 24.25 GHz upwards, to ensure protection of the passive band. The same assumption is applicable to the existing EU-harmonised limits in the Commission Decision. The size of any guard band should be determined by CEPT.

Therefore, I would like to request the CEPT to assess and report on the **adaptation of the additional baseline power limits**³ in Commission Decision (EU) 2019/784 for both, base stations and terminal stations. In this regard, the CEPT should address the following questions:

1. Does CEPT confirm that current wireless broadband (WBB) (5G) equipment complies with the temporary limits of -33 dBW/200 MHz (base stations) and -29 dBW/200 MHz (terminal stations) all the way down to the lower edge of the 26 GHz band (i.e. 24.25 GHz)?
2. Which (upper) portion of the 26 GHz band can be effectively used **as of now** (i.e. how large is the guard band from 24.25 GHz upwards) if current WBB (5G) equipment must ensure protection in line with the long-term limits of -39 dBW/200MHz (base stations) and -35 dBW/200 MHz (terminal stations)?
3. How does the result pursuant to the question under questions 1 and 2 compare with the case of current WBB (5G) equipment complying with the existing EU-harmonised limits of -42 dBW/200 MHz (base stations) and -38 dBW/200 MHz (terminal stations)?

Given the ongoing process of authorising the 26 GHz frequency band in line with Art. 54 of the European Electronic Communications Code, it is essential to preserve regulatory certainty for use of this 'pioneer' band in the Union without delay. I would hence request the CEPT to provide a response by 6 March 2020, even if the questions could only be answered partially.

I would like to point out that the additional CEPT deliverable in response to this letter could be handled within the scope of the existing "Commission Mandate to CEPT of to develop harmonised technical conditions for spectrum use in support of the introduction of next-generation (5G) terrestrial wireless systems in the Union" (RSCOM16-40rev3).

Yours faithfully,



Andreas Geiss
Head of Unit

² This corresponds to full utilisation of the 26 GHz band for 5G

³ As defined in Commission Decision (EU) 2019/784 (cf. Tables 4 and 6 of the Annex)