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Radio Spectrum Policy Group – Secretariat

DG CNECT B4: Spectrum – Office: BU33 7/55

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Response to the Public consultation on the Draft RSPG Opinion on spectrum related aspects for next-generation wireless systems (5G).

Dear Sirs,

Please find enclosed a response to the consultation on the Draft RSPG Opinion on spectrum related aspects for next-generation wireless systems (5G) from Broadcast Networks Europe (BNE).

Yours sincerely

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Broadcast Networks Europe (BNE) welcomes the opportunity to provide feedback on the Draft RSPG Opinion on spectrum related aspects for next generation wireless systems (5G) and express its availability to collaborate and discuss with RSPG on all related issues.

While it should be noted that no clear definition of 5G has been yet provided, BNE recognises the logic behind the strategic approach put forward by the RSPG for 5G in Europe which consists:

- on the one hand to consider bands already allocated to wireless broadband for timely roll-out, and among them the latest allocated frequency bands by WRC-15 (700MHz band and 3.4-3.8 GHz Band);
- on the other hand to consider the new bands above 6 GHz which were listed by WRC-15 in order to facilitate global harmonisation.

Regarding item 2 of the Opinion on the solutions to provide nationwide and indoor coverage with spectrum below 1 GHz, BNE makes the following comments:

- BNE emphasizes that the band 470-694 MHz is not to be considered in any respect for 5G, even for the long term. There is now a consensus that the 470-694 MHz band is the core band for terrestrial broadcasting services in Europe and in the world, and will remain so for the foreseeable future, as decided upon at WRC-15 and set out in the RSPG Opinion on the future of the UHF Band and in the report by Pascal Lamy.
- BNE supports the RSPG strategy which is focused on bands already or about to be harmonised.
- According to the RSPG Opinion on the implementation of the current RSPP and its revision to address the next period[1], this approach could make use of up to 210 MHz of spectrum below 1 GHz that will become available in 2020 - and in 2022 in some countries -, which is as much or more than existing and foreseen low band spectrum in the USA, Australia, Japan and South Korea.
- BNE understands that in some countries initial roll out for networks at 700 MHz will be based on 4G technology and that the 800 and 900 MHz bands are heavily used for 2G, 3G and 4G networks. This may pose a challenge for the mobile sector in the introduction of a new technology, but it is impossible and unreasonable to motivate from an efficient spectrum management standpoint that in a single country 2G, 3G, 4G and 5G networks should be operated simultaneously for the sake of providing coverage to each existing legacy network as well as new networks based on new technologies. At WRC-15 a decision was also taken to review how efficiently spectrum is used in the whole UHF band at a later conference.

Regarding item 3 of the Opinion, BNE supports the opinion of the RSPG which is stating the need to ensure that technical and regulatory conditions for all bands already harmonised for mobile networks are fit for 5G use. BNE understands that this will include protection of services in adjacent bands. For instance, BNE emphasizes that the compatibility studies between DTT and MFCN in the 700MHz band were conducted based on the technical characteristics of DTT and LTE. **In the case where 5G below 1 GHz would be based on a new radio interface and/or revised band plans, compatibility studies should be reviewed in order to guarantee the protection of broadcasting services in the adjacent bands.**

[1] RSPG16-006, February 2016- see Table 1 page 70

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