

BBC response to the Ofcom consultation: Expanding Access to Shared Spectrum

18 September 2024

Introduction

The BBC is grateful for the opportunity to comment on Ofcom's proposals for Expanding Access to Shared Spectrum. The frequency range 3800-4200MHz in particular is vital to the operations of the BBC and that will continue to be the case. Ofcom have sought stakeholder input on shared spectrum access over the past year and the BBC has responded, welcoming improved access while also highlighting the requirement for Ofcom to continue to protect existing BBC services within the band.

To recap earlier BBC responses, within the range 3800-4200MHz the BBC operates a number of satellite Receive Only Earth Stations (ROES) in the UK on sites registered with Ofcom through Recognised Spectrum Access (RSA). BBC Monitoring at Crowsley Park receives foreign broadcasts across the entire 3800-4200MHz protected by longstanding RSA. This activity is undertaken in support of the BBC's commitments to various government departments as specified in an agreement until at least the end of 2027¹. Satellite services are subject to change without notice, requiring BBC Monitoring to be able to access the full range 3800-4200MHz as well as other spectrum at all times.

Also the BBC has deployed low and medium power 5G Private Networks in the range 3800-4200MHz to enhance live BBC productions at a number of major events following the introduction by Ofcom of Shared Access Licences (SALs). The statement highlights one example for the King's Coronation. However, we note that there is confusion over the terminology used by Ofcom, referencing it as '5G Broadcasting', which incorrectly implies transmission intended for reception by the general public – instead, this deployment was used for 'Content Production', a very different application to 'Broadcasting'.

Internationally, an EU Mandate to CEPT in 2021² promoted the deployment of terrestrial wireless broadband systems in 3800-4200MHz, to provide local area network capability for base stations of low and medium power. The CEPT has pursued this through PT1 and FM60 to produce the recent ECC Report 358 considering sharing mechanisms with other services. Following the report the

¹

https://assets.publishing.service.gov.uk/media/5a750e5eed915d60d3b90c45/BBC_Monitoring_Agreement_Dec_2016.pdf

² https://cept.org/files/6813/Mandate%203_8-4_2GHz.pdf

CEPT has now published an ECC Decision harmonising technical conditions for the shared use of the 3.8-4.2GHz band by 'low/medium power terrestrial wireless broadband systems' (WBB LMP). Similar trials and regular use of 5G Private Networks for Content Production has now become established in a number of European countries including Germany, Switzerland, Denmark and Norway, particularly in 3800-4200MHz. The EBU has submitted a paper to be considered at the next FM60 meeting promoting 5G Private networks, licensed as conventional Programme Making and Special Events (PMSE) for Content Production alongside other low and medium power use in the range 3800-4200MHz.

Ofcom's recently proposed refinements to coexistence and sharing between users for SAL applications have been broadly welcomed by the BBC and we look forward to their implementation at the earliest opportunity to enhance spectrum availability, especially for 5G Private Networks used in Content Production. These changes however also require retention of sufficient protection for BBC satellite ROES at sites with RSA. It isn't yet clear how this will be achieved by Ofcom and the BBC wish to understand how protection of these vital services will be maintained.

Despite Ofcom's encouraging initiatives to enhance shared spectrum access, particularly for 3800-4200MHz, Ofcom's proposal to update adjacent band co-ordination for UK Broadband in 3925-4009MHz appears at odds with this goal. A high power 5G mobile network is now to be introduced into this range with permitted Out of Band (OOB) emissions **49dB** greater across the entire range 3800-4200MHz. Contrary to the assertion in paragraph 3.33 of this statement the BBC does not support the substantial increase in OOB which is liable to severely impact spectrum availability over wide geographical areas for low and medium power use of shared spectrum. More detail is set out in the BBC response to the Ofcom consultation on 'Optimal use of 3.9GHz spectrum'.

Spectrum access for Content Production is generally required at short notice, within a few days and then only for short periods of typically less than one week. The Shared Access Licence application process has never been geared to match these time scales and durations. As a result shared spectrum has only been secured for events with longer lead times such as the King's Coronation. BBC responses to earlier shared spectrum consultations advocated for a faster application process to suit Content Production but Ofcom have now stated that the Shared Access Licence application process is not suited to "pop-up" style spectrum requirements³. Instead, other spectrum products are suggested as more appropriate. As a result the BBC is looking to also pursue access to shared

³ Supporting increased use of shared spectrum – Ofcom Consultation published 23rd November 2023

spectrum through other means for 5G Private Networks, licensed as PMSE. There do remain though some instances with longer lead times where Content Production can take advantage of the SAL process and its shared spectrum including for the highest profile events and long term indoor use.

Question 1: Do you have any comments on our proposal to make Medium Power licences (42 dBm EIRP, up to 10m height) commonly available in urban areas across most of the UK, for the 3.8-4.2 GHz and 1800 MHz bands?

The BBC support the proposal.

Question 2: Do you have any comments on our proposed balancing measures:

i) to continue to only grant Medium Power licences in the Greater London area (as defined in our mm Wave work) by exception, applying the 'premises sterilisation' test?

No comment

ii) to apply a 100 MHz limit to the amount of spectrum a licensee can transmit at Medium Power in a particular urban area?

No comment

iii) to apply a new price as part of this liberalisation, set at £160 per 10 MHz for Medium Power licences in urban areas?

No comment

Question 3: Do you agree with our proposal to remove the TRR in relation to Low Power outdoor base stations in 3.8-4.2 GHz?

Yes. Mobile and nomadic terminal equipment used in Content Production operates in conjunction and in close proximity to base station equipment.

Question 4: In relation to our impact assessment, do you agree with our assessment of the potential impact of the further proposals we are making?

No comment.

Question 5: In relation to our equality impact assessment, do you agree with our assessment of the potential impact of the further proposals we are making on specific groups of persons?

No comment.

Question 6: In relation to our Welsh Language impact assessment, do you agree with our assessment of the potential impact of our further proposals on the Welsh language? Do you think our further proposals could be formulated or revised to ensure, or increase, positive effects, or reduce/ eliminate any negative effects, on opportunities to use the Welsh language and treating the Welsh language no less favourably than English?

No comment.

Question 7: Do you have any further comments on our proposals?

No comment.
