

BBC response to Ofcom consultation: Changes to the digital television and digital radio technical codes

February 2023

Summary

- The BBC welcomes the opportunity to comment on Ofcom's consultation on changes to the digital television and digital radio technical codes. We also responded to Ofcom's 2019 consultation on revisions to the digital radio technical codes.
- The BBC is the UK's number one media brand, used by 90% of adults each week. We deliver TV and radio content to audiences via a number of distribution routes. The BBC operates two multiplexes (Multiplex 1 and Multiplex B) and a national digital radio multiplex.
- We have commented on consultation questions 1 to 4, which are most relevant to us. Our key recommendations are:
 - Ofcom should use up-to-date population data in its 'Adjacent Channel Interference' (ACI) assessments, which takes into account new housing.
 - We would welcome clarity about the process that will be followed where there are real world impacts to existing multiplexes for a transmitter that was predicted to have a negligible impact.
 - Ofcom's additional sensitivity analysis should start at Case 2, and only include Case 3 when evidence shows that an 8dB change to the protection ratio does not adequately affect reception.
 - The codes should state that, if non-critical masks are allowed in the future, then ACI analysis will take into account the non-critical mask as part of the assessment.
 - Going forward, Ofcom should monitor interference cases that could be linked to transmitters that have been self-assessed, to provide reassurance that the new approach is working.

Consultation question 2

Do you have any comments on our proposed changes to the DAB Technical Policy Guidance relating to the process of transmitter approvals? In particular, do you have any comments on our proposed sensitivity analysis, or on whether we should require or permit applicants to provide both horizontal and vertical pattern information?

- Ofcom has developed further the ‘Adjacent Channel Interference’ (ACI) assessment process revisions from 2019. We broadly agree with the process as set out in the consultation, however there are a number of points we’d like to highlight.
- The assessment of new DAB transmitter sites will be based on a technical assessment carried out by Ofcom. Where Ofcom’s ACI predictions suggest that the ‘real world’ impact of a new site is likely to be ‘negligible’, Ofcom will remove the requirement for the multiplex operator launching the transmitter to liaise with other licensees (4.17).
- We understand that Ofcom is using old population data (from around 2011). As such, its assessment will not directly take into account new housing. To be comfortable with the proposed approach, we would request that Ofcom uses up-to-date population data.
- Ofcom has undertaken real world modelling and found that ‘*the impact on actual reception has generally been less than our ACI hole punching modelling would suggest*’ (4.19). This has driven the approach of accepting and licencing transmitters predicted to be below the significance threshold outlined in paragraph 4.23, without the need to liaise with other multiplex licensees.
- We would welcome clarity about the process that will be followed for newly launched transmitters if any real world impacts to existing multiplexes were found to be above the prediction thresholds proposed in this consultation.
- Where Ofcom’s ACI predictions suggest that the real world impact of a new site will be above the significance threshold, it suggests that additional sensitivity analysis is undertaken using the steps in paragraphs 4.33 to 4.38, to judge the severity of the predicted impact and whether it could be fully or almost fully eliminated.
- In the past, broadcasters and Ofcom have only carried out a sensitivity analysis using a 5dB relaxation to the protection ratios to reflect the performance of more modern receivers. Ofcom proposes to introduce this technique and refine it through analysing real world impacts. Table 8 identifies four different protection ratio cases, with the proposal to use Cases 2 or 3 to determine if the impact falls below the threshold.
- It would be prudent for Ofcom to start with a sensitivity analysis of Case 2, and only include Case 3 when evidence shows that an 8dB change to the protection ratio does not adversely affect reception.

- Ofcom identifies two examples of mitigations that a proposer of a new transmitter may need to consider. For clarity, we would suggest updating the guidance with the underlined text: *'such as, but not limited to, reducing the proposed transmitter power or other technical characteristics of their site'*.

Consultation question 3

Do you have any comments on our proposals for investigating and potentially permitting use of the non-critical mask?

- DAB standards specify spectrum 'masks', which define the maximum level of out-of-band signals a DAM transmission system can produce. DAB multiplex licensees are required as a condition of their licences to comply with the spectral mask characteristic set out in the DAB Technical Code. The 2019 consultation asked for views on using less stringent non-critical masks for low power transmitters, such as those used by small scale DAB. Work is still progressing on this and Ofcom plans to engage with stakeholders to explore this further, with the intention of permitting the use of non-critical masks.
- We welcome the opportunity to engage in this work, but note that there is no link between it and the proposed changes in the ACI assessment. We request that it is stated in the codes that, if non-critical masks are allowed in the future, then ACI analysis will take into account the non-critical mask as part of the assessment.

Consultation question 4

Do you have any observations on Ofcom's process and information we are providing and proposing to provide in relation to acceptance tests and compliance checks? Is there anything missing that would help make the process smoother or easier from your perspective?

- It is welcome that Ofcom is adding additional guidance and advice to support launching small-scale DAB transmitters. However, having Ofcom observe acceptance testing brings in a higher level of confidence that new services will not impact current services.
- We ask that going forward, Ofcom monitors interference cases that could be linked to transmitters that have been self-assessed, to reassure multiplex licensees that this approach is working.