Response to Ofcom Consultation – UK Broadband application for licence variation

Introduction

ITN wishes to respond to this consultation in regard only to the issue of possible interference (receiver blocking) that might be caused in the adjacent bands which are currently allocated to PMSE use.

This consultation comes at a time when there is also a consultation on the wider issue of PMSE future spectrum access and when the 2.5GHz spectrum previously allocated to PMSE is about the be auctioned.

Interference (receiver blocking)

We believe UK Broadband wishes to alter its licence to support a mobile WiMAX service (IEEE 802.16e), which necessitates a very much higher transmitter power for the central stations and smaller increase for the mobile terminals. This increase in power is to be combined with a much denser network of transmitters to support the mobile terminals. UK Broadband currently operates a point-to-point broadband network.

In clause 5.17 of the consultation, Ofcom discusses the whether increasing the EIRP of transmitters in UK Broadband's allocations could result in an unacceptable level of receiver blocking. Ofcom concludes that there would not be extra interference for users in adjacent spectrum.

Our concern is that there is no evidence to support such a judgement.

Ofcom states that there are many factors that contribute to interference and that EIRP may not be the most significant. This statement is true but the inference that EIRP is therefore not as important is unjustified. There is ample evidence that it is an important factor within the current 2 GHz band allocations for PMSE. In the two allocations for PMSE use the channel at the upper end is severely impaired by the interference from transmitters in the adjacent band, we are seeking reassurance that this will not occur in the 3.5GHz band should the proposed power increases be implemented.

Ofcom lists number of deployments and proximity as other factors and rightly suggests these are dependent on the activities of both the source of the interference and the affected party. Ofcom says these factors are outside the scope of the licence application and are unpredictable and notes that such interference can occur with the existing EIRP limits. We believe these factors are likely to be significant and therefore we are asking Ofcom to examine this issue before changes are made.

Conclusion

We would ask Ofcom to reconsider the potential for interference to PMSE use of the 3.5GHz band from the higher levels of EIRP proposed in the consultation before granting the variation

in UK Broadband's Licence. This request is based on our experience in the 2GHz band where interference is being caused by adjacent band transmissions.

While the 3.5GHz band is not currently the most important one for ITN's day to day operations, it has been essential to us on major events such General Election coverage, State occasions etc. We are regular users of the 2GHz allocation which is about to become far more congested. Our use of wireless cameras and digital point to point radio links will increase in the coming years and other, non-news, PMSE users demand is also set to rise. In addition, some users will require High Definition channels which use double the spectrum.

Therefore the 12 channels adjacent to UK broadband will become much important when the 2500-2690MHz spectrum closes down. PMSE users currently have access to 36 channels below 3GHz but when the 2500-2690MHz spectrum is auctioned at the beginning of next year, the available spectrum below 3GHz will be reduced to 17 channels and congestion is therefore likely to be a major problem. The allocation at 3.5GHz is a possible escape route for users who are able to invest in new equipment. Other potential PMSE allocations at 5GHz and above are not currently viable because the equipment is not widely available and is more costly. Furthermore, current DVB-T technology does not work effectively in these higher frequency bands.