

British Entertainment Industry Radio Group (BEIRG)

Response to Ofcom's consultation: 'Coexistence of new services in the 800 MHz band with digital terrestrial television'

Date: August 2011

Contact Details:

**Fiona Graham
Ranelagh International Ltd on behalf of the BEIRG Steering Committee
One Ranelagh Road
Westminster
London SW1V 3EX**

**Tel: 020 7828 1603
fiona@ranelagh.info**

Response

1. This is the British Entertainment Industry Radio Groups response to Ofcom's consultation on the coexistence of new services in the 800 MHz band with digital terrestrial television. BEIRG is also responding to the consultation running parallel to this on technical licence conditions for the auctions of the 800 MHz and 2.6GHz spectrum.
2. BEIRG understands that DTT signals below the newly released 800MHz band are likely to experience interference from this band. Any such interference would have severe repercussions for the PMSE industry. Digital television is one medium in which PMSE content is delivered to consumers. PMSE users provide a significant amount of live entertainment content to broadcasters. As a result, damage to consumer's ability to receive interference free DTT signals would thus damage the delivery of PMSE content to consumer.
3. BEIRG is also concerned about the PMSE industry's ability to produce content once new services begin to operate in the 800MHz band. As well as accessing spectrum through the dedicated PMSE channel (Channel 38), most professional PMSE spectrum usage is in the geographic interleaved spectrum between DTT multiplexes. This type of access is especially common in cases where a high channel count is required and for touring theatre and live music productions which operate across the country. Given the PMSE industry's significant reliance on geographic interleaved spectrum, BEIRG is extremely concerned that degradation of these channels as a result of LTE base station and UE out of band emissions will render them unusable, and will further reduce the quantity of white space spectrum available to PMSE.
4. BEIRG believes that the use of On Channel Repeaters (OCR) as mitigation could further negatively affect the availability of interleaved spectrum for PMSE at certain locations. Since the job of an OCR will be to increase the field strength of one or more DTT signals over an area it will thereby increase the radius over which the repeated channels cannot be used for PMSE. Whilst the incremental difference may be regarded as small overall this could still prove critical to PMSE activities in certain locations where interleaved spectrum is already in short supply.
5. The continuing overall decline in interleaved availability for PMSE is particularly concerning given that demand for live PMSE content is continually increasing. If the current trend in the reduction of available geographic interleaved spectrum continues, the PMSE industry will soon be unable to meet consumer demand.
6. The analysis of the effects of interference, particularly on communal aerial systems, only concentrates on the effects of interference on dwellings. However, these systems are also widely used in business premises such as, hotels, offices, hospitals, schools, colleges, theatres and even broadcast studio complexes. Mitigation measures will also be required for these users, the costs of which should not fall to the owner or operator of the premises. The number of additional services frequently carried on these systems renders them more likely to suffer interference,

through no inherent fault in the existing system, than domestic receivers in the same TV coverage area. Calculating the number of affected households from census data alone fails to take in to account any of these types of user.

Conclusion

7. BEIRG believes that in any cases of interference arising from the 800MHz band, to any given technology, the polluter should pay the mitigation costs in full. At present Ofcom refers to plans to set up a mitigation company that will assess the new services and perform the remedial actions that will be required for DTT users to avoid the effects of interference. BEIRG believes the costs of mitigation must be met by the new services operating in the 800MHz and 2.6GHz bands. If consumers, and PMSE users, do require filters to avoid interference to their radio signals then the costs of these should be met entirely by the new operators of the 800MHz band.
8. BEIRG is very concerned that out of band interference below 790 MHz, caused by new mobile services in the 800 MHz, will further reduce the amount of interleaved spectrum available to PMSE, putting even more pressure on the PMSE community's ability to deliver the quality of service and quality of content that citizens and consumers have come to demand and expect.

Consultation questions

1: Do you have any comments on our modelling approach and assessment of numbers of households affected?

BEIRG believes that Ofcom's assessment of how many how many households will be affected is at best misguided, at worst disingenuous. The modelling approach fails to take into account multiple devices in each household and fails to address whole groups of citizens and consumers.

There are many other DTT consumers who will suffer from harmful interference as a result of deployment of LTE into the 800 MHz band. These include those who receive DTT signals via amplified aerial systems and communal aerial systems, as well as others who receive their TV via cable TV set top boxes. Above 862 MHz users in the 863-870 MHz band will, in all probability, also suffer from harmful interference from handset or dongle type LTE devices. BEIRG believes that wireless microphone users in the 863-865 MHz band will be negatively impacted upon. Ofcom has largely ignored this significant group of spectrum users.

2: Do you agree with our high level conclusions on mitigation options?

As previously stated, BEIRG believes that the suggested numbers of households likely to be affected is seriously underestimated. BEIRG believes that the estimate for 'fixing the problem per household' is also underestimated. Therefore, the projected costs associated with the mitigating measures that will need to be undertaken are far too low. BEIRG notes that there are no proposals to attempt to mitigate interference **above** 862 MHz, meaning all spectrum users above 862 MHz, under current proposals, can expect no help from the MitCo.

3: Do you have any comments, views or evidence that you would wish to be considered in our further work looking at the appropriate level of consumer support?

It is essential that affected parties, other than DTT, should also be addressed. A further consultation is required on how spectrum users either side of the 790-862 MHz band will be negatively impacted by the roll out of LTE services.

MitCo's remit must also be expanded to include all affected parties.

4: Do you have any comments or views on how we have assessed the approaches and our preference for the hybrid approach?

Ofcom appears to be downplaying the amount of interference that will be caused by the deployment of LTE in the 800 MHz band and trying to ensure that 'the polluter' should pay as little as possible towards the clean up costs – if indeed cleaning up will be possible. It also appears that there will be little or no involvement from the 'polluted' parties.

BEIRG believes that the new licensees will want to spend as little as possible on mitigation actions. Therefore, whichever approach is adopted it is essential that an independent body ensures that the new licensees meet their obligations, in full, to all affected parties. Citizens and consumers should not be expected to pick up the bill for laying the foundations of the new licensees' future prosperity. At the end of the process citizens and consumers have a legitimate expectation to have a 'no better, no worse' DTT service, at no cost to themselves.

As for affected parties above 862 MHz, they too should be offered at best protection and if this is not possible then alternative licence exempt frequency bands should be identified and a mechanism devised whereby migration is enabled at no cost to the consumer.

5: Do you agree with the options, the assessment approach and our initial conclusions? What are your views on cost risks and how to deal with them?

No. BEIRG believes that in its haste to facilitate the roll out of LTE services by the Mobile Network Operators, Ofcom has ridden roughshod over and completely ignored the concerns of existing users of adjacent spectrum. The introduction of LTE services, particularly in the 800 MHz band will severely inconvenience hundreds of thousands, if not millions of citizens and consumers.

BEIRG fears that the mitigation proposals, as currently suggested, are weak at best and run the risk of being diluted over time. Additionally, no impact assessment has been undertaken into the negative impact of spectrum users above 862 MHz. Although not BEIRG's core remit, it should be noted that thousands of Churches, Schools, Colleges, Theatre Groups, Musicians, Conference Centres and Businesses will, under the current proposals, have to cover the cost of replacing their wireless equipment without any help from the parties that have rendered their equipment redundant. The polluter pays? Not for users of the 863-865 band it would appear.

About BEIRG

BEIRG is a non-profit making organisation set up to represent users of radio spectrum in the Programme Making and Special Events (PMSE) sector. BEIRG's members are involved in the production of all areas of television content, at national, regional and local level.

The PMSE sector is a key component of the British entertainment industry which contributes at least £15 billion annually to the UK economy. The sector relies upon wireless equipment such as microphones, in-ear monitor systems, talk back and instrument systems. Over the last 50 years such technologies have largely been utilised in television and radio programming, however increasingly high levels of audio quality and ease of use has also led to their deployment across a much wider array of event production. Theatres, film, broadcasting and live sports events all rely on PMSE equipment for production of their content.

What is essential for PMSE users is that they are able to access clean, interference free spectrum. PMSE equipment operates at the forefront of the production chain and thus any interference will affect live content at source. If such interference is particularly severe then it can lead to shows, events or live broadcasts being cancelled. This would have serious repercussions, and in the shorter term, could result in the cancelation of shows and events. In the longer term, failure to address the PMSE industry's need for clean, interference free spectrum could result in a widespread reduction of the industry's ability to produce the quality live entertainment content for which the United Kingdom is renowned for worldwide.

Currently PMSE users have Channel 69 as a dedicated channel nationwide for their use. However, due to the clearance of the 800MHz band for sale, PMSE users are now being required to relocate from Channel 69 to Channel 38. From 2012 PMSE users will use Channel 38 as their new dedicated channel.

PMSE use is not solely limited to Channel 38. In addition to this dedicated channel, PMSE users rely on access to the TV white spaces. The clearance of the 800MHz band for new mobile services has seen a significant reduction in the volume of white space available for PMSE. These bands are relied on for the production of large-scale events.

It is essential that PMSE users, who have already seen degradation in the quantity of spectrum available for their industry, do not also suffer a reduction in quality as a result of new mobile services.