British Entertainment Industry Radio Group (BEIRG)

Response to consultation ‘Securing long term benefits from scarce spectrum resources - A strategy for UHF Bands IV and V’

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Introduction

The British Entertainment Industry Radio Group (BEIRG) is an independent, not-for-profit organisation that works for the benefit of all those who produce, distribute and ultimately consume content made using radio spectrum in the UK. Productions that depend on radio spectrum include TV, film, sport, theatre, music, newsgathering, political and corporate events, and many others. In the context of the Digital Dividend Review (DDR), BEIRG campaigns for the maintenance of Programme Making and Special Events (PMSE) access to sufficient quantity of interference-free spectrum.

Response

Future Mobile Broadband Spectrum Requirements

Question 1: Do you agree that meeting the future growth in demand for mobile broadband capacity will deliver significant benefits to citizens and consumers?

a. No. BEIRG recognises that mobile broadband, and other services, may bring some benefits to consumers in the future, but this should not be at cost to other industries reliant on spectrum, such as PMSE. Whilst BEIRG supports increased access to broadband, we do not believe that the only means of delivering this are mobile services, nor the most cost-effective. Ofcom must fully weigh up the various opportunities and technologies (for example, Wi-Fi connected to fibre optic cables) to deliver increased broadband access, before rushing to allocate greater volumes of spectrum to MNOs, to the disadvantage of citizens and consumers. BEIRG endorses Brian Copsey's comments in his submission to this consultation.

b. The impact on those industries reliant on PMSE of allocating more UHF spectrum to mobile broadband will far outweigh any benefits to citizens and consumers. PMSE, and the creative industries which rely on it, are a growing sector, and are currently responsible for 1.5 million jobs and a contribution of £36 billion annually to the British economy, as estimated by the Department for Culture, Media and Sport[1]. Any changes to spectrum allocation which will affect the ability of these industries to operate risk diminishing their contribution to society, and will reduce their capability to provide a range of benefits to consumers.

c. What is essential for PMSE users is a maintained ability to access clean, interference free spectrum. With the 800MHz band having been allocated to mobile companies; available spectrum is becoming ever scarcer as demand for wireless technology continues to increase. PMSE access to spectrum is already extremely limited, with large productions already facing constrictions on the shows they can stage. There is therefore a need for new services to recognise, respect and co-exist with PMSE users, to ensure fair usage for all. Additionally, Ofcom must not do anything that will negate their ability to redress any shortfall in current or future spectrum availability for PMSE.

d. BEIRG also notes that new services will interfere with channels further down and above the spectrum, outside of those TV bands that are being proposed for future mobile broadband use. This will further reduce available spectrum, and have an effect on the benefits industries such as PMSE can bring to both citizens and the economy. It is imperative that Ofcom work to ensure that spectrum is managed carefully and

[1] See http://www.culture.gov.uk/images/research/Creative-Industries-Economic-Estimates-Report-2011-update.pdf

appropriate guard bands are provided within part of any new service allocations, and that these guard bands do not further encroach on PMSE spectrum.

Question 2: Do you agree that additional harmonised mobile broadband spectrum will play an important role in meeting the future growth in demand for mobile broadband capacity? What are your views on the overall quantity of harmonised spectrum that will be required to meet future demand? How does this compare with the expected increase in spectrum for mobile use discussed in this section?

a. No. BEIRG does not accept that the 700MHz band has to be cleared. No formal decisions were reached at WRC12 with regard to the future of UHF Bands IV and V. Making the 700MHz band available for mobile broadband was proposed by delegates from African nations, which have a much less advanced broadband infrastructure, and less congested spectrum allocation. Whilst using the 700MHz band for mobile broadband may suit their situation, the established spectrum situation in Europe means such a change would not be appropriate for this more mature market. BEIRG does not believe that widespread spectrum clearances should be undertaken. It is important that mobile companies make better use of their existing spectrum resources for mobile broadband before being assigned any new bands. Given the large quality of spectrum available to mobile services, and the limited access, which PMSE has, no decision should be made on 700MHz until mobile services can prove to be making the best use of their available spectrum.

Question 3: Do you agree that additional harmonised spectrum provided by the 700MHz band could play an important role in meeting the future growth in mobile broadband capacity?

a. No. BEIRG does not agree with Ofcom that the 700MHz band would need to be available for release before other capacity enhancing techniques have been explored in order to maximise the benefits from the MNOs' existing spectrum holdings. BEIRG is concerned that the facts surrounding the need for expanded mobile broadband provision have been presented inaccurately, and that clearance of UHF Bands IV and V does not need to be carried out. It is not the only option available for mobile companies to extend their coverage and meet future growth.

b. BEIRG believes that it should be possible for mobile companies to ensure adequate rural mobile broadband coverage with the level of spectrum access that they currently enjoy. Additional spectrum allocation for mobile broadband is therefore not needed at this time. BEIRG is concerned that the mobile companies have so far not best utilised their current spectrum allocation and that much more efficient use could be made of this limited resource. As yet, the 800MHz/2.6GHz auction has not taken place. This auction will significantly increase the spectrum used by mobile services. No decision should be made on the 700MHz band until it is clear how demand can be met by these new

services. If future demand can be met by 800MHz and 2.6GHz, then BEIRG cannot see why access to the 700MHz band should be allowed for mobile broadband at the expense of other industries.

Question 4: Do you agree that the value of the role played by the 700MHz band in meeting the future growth in mobile broadband capacity would be greater if it becomes available before other capacity enhancing techniques have been exhausted at existing mobile sites?

a. No. See Question 3. Mobile companies need to make the most of what they have, especially as spectrum is limited and must allow all spectrum-reliant industries fair access. If PMSE does not have sufficient access to spectrum, its capability to produce content will be severely hindered – even to the point where the industry will not be able to supply enough content for consumers to watch, ironically in some cases via broadband access, rendering the increased mobile broadband levels unnecessary and impacting on the service quality received. Content creation comes before content delivery. This fact should not be underestimated or ignored.

Question 5: What timing of 700MHz release would maximise the benefits associated with its use for mobile broadband?

a. Release of 700MHz as early as 2018 should not be considered as an option. Not only is its release not necessary, but any change to spectrum allocation with such short notice would cause a major upheaval in the PMSE and wider broadcast industries. It is a decision that should not be made rashly or with undue haste. A change will require members of the PMSE sector that currently operate in this band to replace their equipment, which will be rendered obsolete by the clearance, and to do so with insufficient lead-in time. Many of these members have already been forced to repurchase equipment as a result of the channel 69 clearances, and to expect the industry to do so again so soon is unworkable, and would be financially unviable for many.

Future DTT Spectrum Requirements

Question 6: Do you agree that DTT will continue to play an important role in providing universal low cost access to PSB content over at least the next decade?

a. Yes, BEIRG agrees that DTT will continue to play an important role in providing this access, and should be enabled to maintain access to all spectrum it currently utilises. Figures 9 and 10 provided in this UHF strategy consultation document show that DTT has a growing majority market share of platforms across all TV sets in the UK, which must be provided for.

Question 7: Do you agree that, absent major changes in available spectrum, DTT would continue to remain attractive to viewers and deliver important benefits to citizens and consumers over at least the next decade?

a. Yes, so long as DTT has the capability to deliver quality service, and the ability and resources to continue to grow its service, it will continue to hold a significant share of platforms across TV sets. This will enable it to sustain delivery of important benefits to citizens and consumers in for the future.

Question 9: Do you agree that a longer term approach to secure benefits from UHF Bands IV and V should consider how to safeguard benefits delivered by the DTT platform?

a. Yes. It makes no commercial sense to threaten these benefits. However, the long term approach needs to encompass all users of UHF Bands IV and V, not just DTT. At present, TV broadcast use of spectrum allows PMSE users access to interleaved spectrum. Future buyers, such as the mobile companies, operate markedly different systems and would be unable to continue allowing this access for PMSE services. This would severely damage the sector and could lead to market failure. PMSE use of interleaved spectrum must therefore be considered alongside that of DTT, with both requiring long-term security from future plans for UHF Bands IV and V.

Other Uses Of UHF Bands IV and V

Question 10: Are there other material factors affecting the future requirements of PMSE that we should consider as we develop an approach to secure long term benefits from UHF Bands IV and V?

a. Yes. Any future move to re-allocate spectrum usage in UHF Bands IV and V would be severely disruptive to an already hard-pressed PMSE industry. BEIRG welcomes the delay in auctioning off the 600MHz band. However the arrangement suggested by Ofcom, whereby PMSE access to the 700MHz is replaced instead by access to the 600MHz band, is neither suitable, nor practical. With growing demand from PMSE services, and an expanding consumer base, PMSE professionals require access to both the 600MHZ and 700MHz bands. Access to a contiguous band of spectrum is very important for flexibility as well as quality of PMSE. Regional variation in spectrum use causes changing requirements for PMSE which must adapt to local availability. Putting more pressure on PMSE through an ever-decreasing amount of spectrum will be highly damaging for the long-term benefits that could be gained from UHF Bands IV and V through good management.

b. If the 700MHz band is ultimately made available for mobile broadband, the PMSE industry would have to stop investing in equipment designed to operate at 700MHz (and yet 80% of recent professional equipment sales utilise the 700MHz band). If such a clearance were put into place, the sector would require a formal compensation scheme far above the recent channel 69 funding scheme.

c. Being allowed only six years of use out of new equipment, before new purchases must be made as a result of spectrum clearance is not feasible for the PMSE sector; the industry typically gets between fifteen and twenty years of use out of professional equipment.

Question 11: Are there other material factors affecting the future requirements of Local TV that we should consider as we develop an approach to secure long term benefits from UHF Bands IV and V?

a. Yes. Local TV shares the same requirement to have sufficient access to interference-free spectrum as laid out in the answer to Question 10. In order to make it attractive, however, local TV must be supplied with good content from the PMSE industry. Without sufficient access to spectrum, the PMSE industry will not be able to deliver world leading content. The two sectors must be allowed to support one another to secure the best long-term benefits from UHF Bands IV and V.

Question 12: Are there other material factors affecting the future requirements of WSD applications that we should consider as we develop an approach to secure long term benefits from UHF Bands IV and V?

a. BEIRG thinks that the best solution to secure long-term benefits from UHF Bands IV and V would include exclusivity of spectrum use for PMSE (with no white space devices allowed access - at least in certain areas of Bands IV and V). To ensure guaranteed PMSE operation without WSD interference, BEIRG would advise allocating a minimum of Channels 35-38 to PMSE. This would require a minimum of two 8MHz band buffers also free from WSDs to ensure a guaranteed level of quality and non-interference.

b. The WSD database will show certain spaces in spectrum as being usable when they are adjacent to parts being used by PMSE – where interference will occur. Much more white space device testing needs to be carried out to determine the potential of WSD interference to other spectrum users, and BEIRG urges Ofcom to conduct these and await the results of further testing before giving the go-ahead to WSD applications which may, in turn, negatively impact on the long term benefits of UHF bands IV and V.

Question 13: Aside from WSDs, are there other innovative ways in which to use UHF bands IV and V to deliver services and, therefore, material benefits to users?

a. BEIRG does not think any additional ways to use UHF bands IV and V should be encouraged, at the risk of oversaturating current spectrum use and leading to a general drop in quality and access for all current users.

Securing Long Term Benefits For Citizens And Consumers

Question 15: Do you agree that the approach that is most likely to secure significant benefits from UHF Bands IV and V over the long term is one that enables the release of the 700MHz band for mobile broadband whilst also ensuring the role of the DTT platform is safeguarded?

a. No – as previously stated, BEIRG believes that securing significant benefits from UHF bands IV and V requires mobile companies to better utilise their existing spectrum holdings, and allow other users to continue to share in this access, to help alleviate the already insufficient amount of spectrum available for users. BEIRG is concerned that there is a real risk of damaging the PMSE industry, and subsequently the consumer, by allowing too much spectrum to go towards mobile broadband use. Along with damage to the industry, costs will likely increase for the consumer as provision of good service becomes harder to achieve. Alongside this, new equipment will need to be purchased by both the PMSE sector and citizens, in order to maintain access to the spectrum-reliant services that they need.

b. It is likely that by releasing additional spectrum for an increase in mobile broadband capacity, citizens and consumers would face a number of negative impacts. This could include the costs of altering or replacing equipment currently used to receive DTT, including the replacement of interference filters in domestic and commercial aerial installations and a loss of spectrum to cable TV systems. Along similar lines, it is probable that the UK would also see a loss of TV content injected into communal aerial systems.

Question 16: Do you believe there is a material risk that the DTT platform will have insufficient spectrum to continue to deliver important benefits (including providing universal low cost access to PSB content) if the 600MHz band is not used for DTT when the after clearance of the 700MHz band?

a. Yes – but this risk also extends to all other 700MHz users (such as PMSE and local TV), who will be bunched up and forced out of spectrum alongside DTT by extensive clearance.

b. BEIRG is concerned by the language used in Ofcom's questions which assumes that the 700MHz band is going to be cleared without further debate. No decision was reached at WRC12, and the implications of 700MHz clearance on industries other than mobile

telecommunications must first be fully understood and addressed before any action is taken. This is a decision which should not be taken with undue haste. BEIRG believes that despite assertions to the contrary, Ofcom and the MNOs are yet to prove that an increase in spectrum for mobile service will deliver the mooted benefits. With the release of spectrum for 4G services the MNOs will have received a significant increase in the spectrum available to them from which they will be able to derive even greater profits. A further increase in spectrum available may be beneficial to the MNOs, but it's perceived importance to citizens and consumers has yet to be conclusively demonstrated. Indeed, lost PMSE and DTT services would ultimately be to the detriment of these same citizens and consumers.

Question 17: Do you believe that using the 600MHz band for DTT after clearing the 700MHz band would reduce the risk that the DTT platform will not be able to continue to provide important citizen and consumer benefits?

a. BEIRG believes that any movement within bands IV and V spectrum will present risks to DTT's ability to provide important citizen and consumer benefits. As previously mentioned, reallocation of spectrum would impact on the other users of 600MHz, and current 700MHz users, as their spectrum use is squeezed. Subsequently, this will lead to negative connotations and damage to both PMSE and DTT, and subsequently damage to the viewing population as well (through associated costs, weighed against their benefits).

b. As stated previously, around 80% of professional PMSE equipment sold operates in the 700MHz band. PMSE users will have to purchase new equipment even if the 600MHz band is available to PMSE. The level of disruption, and the reduction in quantity of spectrum, will severely impact on the PMSE sector and consequently the wider entertainment industry.

Question 18: Do you agree that the future benefits for citizens and consumers of enabling the release of the 700MHz band whilst maintaining the role of DTT are likely to outweigh the loss in benefits of the 600MHz band not being able to be used for other services in the long term?

a. No. Maintaining PMSE access to the 600MHz and 700MHz bands offers the greatest benefits for citizens, consumers, PMSE, and DTT. The PMSE sector is a key component of the British entertainment and creative industry which contributes at least £36 billion annually to the UK economy. The sector relies upon access to clean, interference free spectrum to achieve this. Until 2012, PMSE users operated largely, though not exclusively, in the 800MHz spectrum now earmarked for auction. These users are being cleared from this spectrum; however licensed users will continue to operate in the interleaved spectrum below 790MHz. Yet, if this too is taken away from PMSE, the long-term future of wireless technologies used in the entertainment industry and beyond will be placed into serious question.

b. Ofcom is also currently suggesting changes to the 1785-1800MHz band, endangering further the future delivery of beneficial PMSE services, and shows a lack of connected thought and policy with regards to future spectrum use. BEIRG would strongly urge Ofcom to ensure that all of its consultations acknowledge the work done by the others, to guarantee a coordinated plan for long term spectrum use and make sure that no spectrum users are targeted unfairly and left with insufficient access.

Question 19: Have we identified correctly the possible short-term uses of the 600MHz spectrum? Are there other short-term uses we should consider?

a. As detailed above, exclusivity of some spectrum for PMSE (with no WSD access) for Channel 38 and its contiguous channels – down to and including channel 35 - would provide great benefits and reassurances to help the PMSE industry. Ofcom must plan for the long term across all industry sectors, as BEIRG does not think that extending mobile broadband spectrum access encourages telecommunications companies to farm already held spectrum effectively enough.

Question 20: Which option(s) for releasing 600MHz in the short term would maximise its value whilst supporting our proposed longer term objectives?

a. BEIRG welcomes any short term plan which maintains or increases PMSE access to spectrum. Of the options provided, option a) presents the least interference potential and maximises 600MHz use for PMSE. However, BEIRG would recommend that access for PMSE on a similar basis as its access to existing interleaved spectrum should continue without also allowing WSDs to access this spectrum. The potential for interference in the unmodified scenario is of particular concern. The other choices set out present too great a threat to the successful continued operation of PMSE to be viable.

The Wider Impacts Of changing The Use Of The 700MHz band

Question 21: Do you agree that the wider impacts of a future change of use of the 700MHz band could be managed to prevent them having a detrimental impact on consumers and the services operating in this band?

a. No. BEIRG believes this to be unlikely. The wider impacts of a future change of use of the 700MHz band could not be managed to prevent all of the damage it would cause to the PMSE industry, and would be detrimental. DTT could also be affected, as consumers may have to acquire new equipment to maintain access to the services which are currently provided by this industry. Such costs may be incurred through replacing 'lost' services with other delivery platforms capable of utilising DTT's new spectrum allocation,

interference free. Alternatively, non-financial costs may also be seen through reduction in spectrum access for DTT, with a reduction or loss of HD and other enhanced TV options, or even loss of TV coverage for some citizens. A detrimental impact of some degree is unavoidable if the services currently operating in this band are cleared.

Proposed approach for securing future benefits and next steps

Question 22: Do you agree that the approach set out in this consultation is likely to secure significant benefits for citizens and consumers over the long term?

a. See Question 21.

Question 23: Have we correctly identified the main areas of future work that could follow this consultation process subject to its outcome?

a. There is a need to investigate further the effect that WSD have on interference levels amongst other users. BEIRG would welcome additional tests to fully understand the implications of allowing unlicensed WSDs to operate and the effect that this would have on other spectrum users.

b. BEIRG would also like to call on Ofcom to investigate the possibility of a long-term home for PMSE, allowing for stability in the industry and protection from future clearances.