

# Plus4 audio

*Response to PMSE clearing the 700MHz band  
12/07/2017*

***Q1: Do you agree with our proposed criteria for who should be eligible for the grant scheme?***

No. We believe that the proposed method of calculating eligibility and funding are based on far too narrow criteria.

The 50% overlap proposal does not take into consideration the available spectrum left below 700 MHz for use if the boundary change come in to affect. It is unlikely that the full remaining tuning range of the unit will be available making it a poor investment.

The current funding of 47% does not allow for the time and manpower of replacing equipment as well as any loss of hire due to available provision.

It is understood by us that some large corporations are already being offered up to 100% replacement funding.

Also equipment bought after 2016 may have been necessary to complete existing systems or for use where lower frequencies were not geographically available. It is unfair to penalise a valid purchase especially as this equipment is newer and therefore of most value and may still have finance agreements associated with it.

Funding also needs to be allowed for ancillary equipment such as antenna and distribution which falls into the 700 MHz area and would need expensive filtering if not replaced with a lower tuning range version

In short Ofcom need to be more aware of how this will affect heavy users of equipment such as touring companies and rental houses with large inventories. These companies may make up a small percentage of users but create a very large percentage of equipment use and will be hugely affected by such a large change in spectrum availability.

***Q2. Do you agree with our assessment of the impact clearance will have on equipment which operates exclusively below 694 MHz?***

No , It is not realistic that owners of equipment which is rendered useless due to reallocation of frequencies will be able to sell the equipment or hire into other areas where the frequencies are available.

The resale equipment market is already oversubscribed and it is unlikely that any sale would realise it's market price. If the units were kept in the rental market they would receive the same return hire charges and retain their value. Also a sudden influx of equipment into the resale market will only serve to lower prices further.

It is also impractical to think that hire companies would seek out other areas to rent into where the equipment may be still usable. This does not allow for touring companies where the same equipment need to work in different areas. This would mean multiple sets of equipment would need to be carried to serve the tour. This is not financially practical and would lead to equipment not realising it's possible rental income as production companies will not want to pay for doubling of equipment for the same show.

For some companies the replacement of equipment above 700 MHz would lead to incompatibility with older equipment not currently included in the funding program. Replacing analogue systems with new digital ones causes issues with latency between the different methods of transmission. It is not correct in a professional supply market to try and mix these systems as it would cause audio clarity issues and this compromised approach is not acceptable in a professional environment. It would therefore be necessary to replace all of the equipment above and below the 700MHz range to ensure compatibility and with the current funding of 47% towards equipment with 50% or more of its tuning range above 700MHz only a very small percentage of the funds required for full replacement would be covered. This would cause a great drain on finances for companies who's radio department provides a large part of their income and may cause business continuation issues or cause companies debt to replace the stock.

**Q3. Do you agree with our analysis of the impact clearance will have on equipment which straddles the 700 MHz band and the spectrum below 694 MHz?**

No

Any loss of equipment flexibility due to Ofcom's spectrum clearance plans should taken into account for funding. Large users of PMSE equipment will be adversely affected by any loss of spectrum and will need to replace any equipment tuning above the 700MHz range to obtain the most spectrally efficient stock. This is especially true as the remaining spectrum will be congested with DTT and other users.

**Q4: Do you have any evidence that an alternative boundary for the tuning range of equipment should be drawn?**

Yes

Using the 50% crossover model does not allow for the loss of flexibility suffered by high end equipment with large tuning ranges . For example ,our stock of Sennheiser 3732 MkII N-GB with a tuning of 184 MHz will lose around half of it's effective flexibility if Ofcom decides to take the 700MHz guard band into account and these units do not fall into the funding criteria as only 47.3% of the tuning range is above 703MHz. This would be a huge loss for owners with large stocks of this very popular model. Therefore for fairness Ofcom should not consider the 700 MHz guard band in the funding process .

In reality any equipment affected by the forced frequency change should be eligible for funding whether above or below the 700MHz range .

***Q5: Do you agree with the proposed formula to estimate the level of funding?***

No .

It is not correct to base funding on the equipment residual value alone. In reality the cost of replacing equipment will include many other amounts such loss of hire due to replacement equipment availability , man hours involved in bringing stock into hire use , electrical testing, rack building , re-barcoding for stock management to name a few.

Also due to only 47% funding ,companies will have to find the other 53% to replace equipment. For large users this would mean amounts in the hundreds of thousand of pounds , some of which may need to be financed leading to interest charges.

New models of equipment would not be compatible with custom accessories such as crystal roc covers for hand held microphones , very popular in music touring. These covers can cost thousands of pounds and will only fit the model they were made for. Having to replace the equipment for a newer model would render these covers useless leading to high costs not currently included in the funding. Ofcom must consider all loses due to equipment replacement , not just the transmitting equipment alone but also all accessories.

In many cases the forced replacing of equipment by the loss of spectrum interferes with the natural life span of it and therefore cashflow of a company . Having to replace equipment before it has realised to full rental return and then require 53% of the new cost would represent a poor investment on the original equipment and should be allowed for in funding.

***Q6: Do you agree with our approach to calculating asset life?***

No.

In cases of high end equipment the rate of change in transmitting and audio quality vs time is very slow . Many pieces of equipment such as the Sennheiser 1046 system are still very usable 20 years into service.

The only reason to change this equipment is the forced change of spectrum causing great cost to the company where it could have expected more years of return from it's original investment.

Large users with high end equipment over 15 years old that is still perfectly usable should not have to accept the loss of this rental income due to it's age. This type of equipment should be included in the funding scheme.

**Q7: Are you aware of any developments which would mean data from the 2013 equipment survey or the 2010 Channel 69 statement are likely to misrepresent average asset life?**

Yes.

It is only recently that new , digital equipment has come to the market . Although it has achieved a small amount of industry penetration , original analogue transmitters are still more popular due to reliability , battery life and latency issues with digital systems . It is fair to say that due to trust issues in these new products, older analogue systems have had their usable life extended and can continue to be rented beyond the 2013 survey findings.

**Q8: Do you agree with the use of an average asset age for the estimation of funding entitlements? If not, do you have any suggestions for an alternative approach?**

No

The averaging of asset age penalises companies who own large current stocks of equipment . Although these companies only account for a small percentage of overall users they do account for a large percentage of equipment owned.

These types of company have to remain current and have made large investments in equipment which will be newer than average but will only receive 47% of it's value in return. They may also still have to invest in equipment tuning above 700MHz post 2016 to increase system sizes or to cover events where lower frequency ranges are not available.

It would seem fair to base a funding programme on size of company / equipment owned or turnover based on radio use rather than an average which is far from the reality in larger companies.

**Q9: Are we correct in our assumption that a large proportion of PMSE equipment owners will not have evidence of when they purchased their equipment?**

Yes

it is hard to imagine most companies have records covering equipment going back over 15 years.

**Q10: Do the data in the 2013 equipment survey provide a reasonable basis for calculating average equipment age? If not, do you have an alternative approach for gathering relevant data for making this calculation?**

Although Ofcom has calculated equipment age to the mid 2020's ,the time 700MHz clearance is finalised, companies will be begin replacing equipment from 2018 as clearance begins and frequencies are lost. It is therefore reasonable to reflect this earlier exchange in average equipment age and also to allow for loss of income due to early forced replacement.

**Q11: Do you have any comments on our proposals for how the claims handling process should operate?**

It is important that the funding program is a non profit making exercise and that the equipment is permanently taken out of circulation.

During the 2010 CH69 funding scheme , equipment was offered back for sale to companies by Equiniti . This caused much anger in the RF community and cannot be allowed to happen again.

Funding allocation must be completed without delay. Companies will be reliant on the funds to replace their equipment stocks and any delay would cause loss of rental income.

An overlap of replacement / surrender of equipment would help with this process so no loss of hire would ensue.

It may be simpler to allow companies to keep their 700 MHz equipment therefore retaining the maximum use until it is made redundant due to spectrum change . This would save a costly collection programme although it is accepted that ownership proof would have to be sought.

Plus 4 Audio hopes that Ofcom will listen carefully to the professional audio community in how it views these changes. We have many years of experience between us and can advise accurately on equipment usage and value.

These spectrum changes will cause numerous issues in our profession , in some cases making it impossible to use radio in productions. This is a huge step backwards in our opinion . Government clearly expects the industry to invent its way out of a problem not of it's making. It is therefore Ofcom's/ Governments responsibility to ensure the industry flourishes post spectrum change , this requires fair and prompt funding not included in the current proposal.

Response by

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