

Arqiva response to Digital Dividend Review: geographic interleaved awards

Introduction

The opportunities for new DTT services in the interleaved spectrum which are identified in the consultation document are clearly the result of a lot of detailed technical analysis.

The potential coverage of the DTT services, as indicated in the document and the accompanying reports, amounts to a substantial part of the UK population, and could be of significant interest to providers of, for example, local TV services.

Although we have reservations about the viability of local digital *terrestrial* TV (the most likely source of demand for many of the interleaved lots), timely access to spectrum should not be an obstacle to the establishment of such services. Arqiva agrees with the proposal that, although this spectrum should not be reserved for local TV, it should be auctioned in 8 MHz packages with initial technical licence conditions for DVB-T.

However, as indicated in the document (in section 5.23 and following), a number of technical assumptions have been made in deriving the results which would impact on the potential coverage available. Arqiva are concerned that these assumptions, in particular the use of theoretical antenna templates, may have significantly overestimated the coverage available. A real antenna design, in the case where there are many restrictions in power in different directions, may produce a pattern which falls well short of the outer envelope of the theoretical template.

Whilst Ofcom have noted this caveat, they have given no indication of the extent of this shortfall in coverage, which could lead to an overoptimistic interpretation of what is being offered by potential bidders.

The market also needs some clarity on how interference from use by new services of cleared spectrum into use of the interleaved spectrum would be managed.

Answers to questions

Question 2. Do you have any comments on our assessment of the most likely uses of the geographic interleaved lots? Are there any potential uses which should be considered that we have not mentioned?

Arqiva expects DTT (whether local, regional or quasi-national) to be the most likely source of demand for most of the geographic interleaved lots.

However, we also anticipate interest for PMSE use. To the extent that identified geographic interleaved lots remain unsold, Arqiva believes that the default position should be that such lots should then be offered to the band manager on terms to be agreed on a case-by-case basis.

Question 7. Do you agree that the median option offers an acceptable balance between protecting reception of DTT services and maximising new DTT services using geographic interleaved lots?

Yes, based on the information contained in the consultation document. Ofcom needs to secure a balance between protecting reception by roof-top aerials of the existing Freeview multiplexes and maximising the potential for consumers to benefit from new services.

As noted in the Introduction, Arqiva has concerns that the potential coverage of new DTT services has been overestimated, in which case the balance between cost and benefit for the different options would alter. By the same token, however, the use of realistic antenna designs in the estimates could reduce the interference caused by the new services and help to redress this balance. Again, a more realistic estimate would have provided a clearer indication of the cost-benefit balance.

Arqiva would like to be reassured that the impact of transitional interference has been taken into account in this analysis. In particular, new local DTT services introduced during the DSO process could affect reception of existing low power DTT services in areas that have not yet switched. This is being dealt with in considerable detail for the DSO services themselves, and the introduction of new DTT services in the interleaved spectrum should be subject to the same careful analysis.

Arqiva is concerned at the suggestion that the JPP Plan for Scotland or Northern Ireland could be re-planned to release more interleaved spectrum. While theoretically possible, the antennas have already been specified and are being installed for many DSO regions (for Scotland, in 2008), so there would be considerable expense for the broadcasters to replace these. The uncertainty of this has already impacted ongoing DSO work for Scotland.

Given that Ofcom is sufficiently unconvinced of genuine market interest in new spectrum/site combinations that none will be added to the awards programme unless expressions of interest are received, Arqiva would suggest that it would be highly disproportionate to inject uncertainty into the DSO programme to provide more interleaved spectrum.

Absent evidence of genuine demand for more interleaved lots than has already been identified, Arqiva strongly suggests that Ofcom makes a clear statement that the JPP Plan won't be re-planned in an attempt to release more interleaved spectrum.

Question 8. Do you agree with the proposal for a series of awards of spectrum lots - an award of lots for Caldbeck, Winter Hill and Wenvoe in late 2008 or early 2009, a single award in 2009 of large lots and awards of lots for other locations linked to DSO?

Yes.

Question 9. Do you agree with the proposal to hold the combined award for large lots of geographic interleaved spectrum shortly after the cleared award in 2009? What should the time interval be?

Yes, with an interval sufficiently small so as to minimise the uncertainty faced by bidders which fail to acquire all of the spectrum they require in the cleared award or which are seeking substitute spectrum.

But if the gap is too short, then bidders which have obtained some spectrum in the cleared award would likely not have had an opportunity to fully explore options for obtaining geographic spectrum (whether purchased outright or leased i.e. band managed) from licensees from that award before having to decide whether to register for the large lots award.

We suggest 2 or 3 months.

Question 10. Do you agree with our approach to expressions of interest in order to finalise the spectrum lots appropriate to allocate by auction?

Arqiva would agree that Ofcom should be satisfied that there is genuine market demand before adding any lots into the phased awards, not just to ensure that Ofcom's resources are allocated correctly but also to reduce the risk of Arqiva's DSO team diverting resources into assessments of sites for which there is no genuine interest.

However we would welcome some clarity on what an "appropriate" expression of interest might be, and what might constitute supporting evidence, not least whether Ofcom would seek the same degree of comfort from an existing broadcaster or operator of ECNs or ECSs as it would from a company or other entity with which Ofcom had no prior relationship.

Question 11. Do you agree that we should run single unit ascending bid auctions for the award of each of the spectrum lots for Caldbeck, Winter Hill and Wenvoe?

Yes.

Question 12. Do you have comments on whether the initial auctions of spectrum lots for Caldbeck, Winter Hill and Wenvoe should be run in sequence or in parallel?

Arqiva agrees that there are no obvious synergies between the awards, so there is no benefit to delaying any of them - auction these lots when ready and, if that is likely to result in fairly close timing of these awards, then we would suggest parallel awards on the assumption that this would be the most efficient manner of getting these lots into the market.

Question 13. If the initial auctions are run in sequence do you have a preference for the order in which they run?

No.

Question 14. Do you consider that a combinatorial clock auction would be more suitable than a simultaneous multiple round auction for the combined award of large lots suitable for aggregation?

Yes, principally due to the elimination of aggregation risks.

Question 15. Do you agree with the proposal that the phased award of medium/small spectrum lots at locations linked to the DSO timetable should be by single unit ascending bid auctions? If not, which would be your preferred auction format and timing?

Yes. There seems no reason why the auction design should differ from that proposed for the awards for Caldbeck, Winter Hill and Wenvoe.

Question 16. Do you agree with the proposals for the main rules that we are minded to adopt for each of the three single unit ascending bid auctions?

Yes, although Arqiva believes that for lots of likely minimal economic value (e.g. Caldbeck, Selkirk) a reserve of £25k may be too high resulting in the lot being unsold or adversely affecting the viability of any local TV operators which nonetheless purchased it. Although mindful of Ofcom's administrative costs, we would suggest that a reserve of £10k may be more appropriate for some small lots.

Question 17. Do you have any comments on the technical licence conditions we are proposing to include in the licences?

Arqiva agrees that for non-DTT services in the interleaved spectrum an SUR approach would be more appropriate, and would need to be developed in more detail if there were any interest in such applications in this spectrum. The guard bands indicated in the cleared spectrum consultation would make it very difficult to insert non-DTT services (other, perhaps, than PMSE) into individual UHF channels. In particular, Arqiva considers that the use of interleaved spectrum for mobile communications uplinks would cause serious difficulties to DTT reception and should be avoided (except, perhaps, for low-power cognitive devices when that technology has proved itself).

We would agree that the method used to assess the interference from new DTT services in the interleaved spectrum already amounts to something equivalent to the protection clause for cleared spectrum, as long as the new DTT services are co-sited (or closely sited) with DSO services. In this case, no additional protection clause is required.

Question 18. Do you agree that the licences for the geographic interleaved spectrum should not allow the co-ordination threshold to be exceeded?

At the time of awarding the licences, Ofcom can only guarantee the conditions that are equivalent to the co-ordination agreements pertaining at that time. If these agreements are that the default co-ordination threshold should not be exceeded, then this must be reflected in the licences.

However, we believe that Ofcom should consider seriously the option of improving on these default levels by a process of negotiating with neighbouring countries. If an improvement can be achieved by the time of awarding the licences, then this can be reflected in the licence.

Question 19. Do you agree that where the geographic interleaved spectrum is used for the operation of a DTT multiplex, we should replicate the ownership restrictions from the Broadcasting Act regime relating to (a) local authorities, (b) political bodies, (c) religious bodies and (d) bodies exerting undue influence but not replicate restrictions relating to (e) broadcasting bodies and (f) advertising agencies?

Arqiva does not believe that there should be any unnecessary restrictions placed on the use of DDR spectrum, whether cleared or interleaved, especially where those restrictions are service-specific.

Question 20. Do you agree that we should facilitate interoperability between existing DTT multiplex operators and new operators using cleared spectrum?

Yes. It is in the interest of both existing and any new DTT multiplex providers for there to be a considerable degree of interoperability, and in the first instance achieving this should be left to commercial negotiations.

Question 26. Do you agree with our initial assessment that we should not intervene in the geographic interleaved award to remedy any potential impact on competition resulting from the holding of geographic interleaved spectrum by either Sky or NGW/Arqiva?

Yes.