



BT Response to the Ofcom consultation document on:
**Digital dividend: 600 MHz band and geographic interleaved spectrum –
consultation on potential uses**

Summary

BT welcomes this opportunity to respond to the consultation document on potential uses for the 600 MHz band and the geographic interleaved spectrum released under the digital dividend. We note that the focus of the consultation is on potential uses for the spectrum and we have framed our response accordingly.

We believe the priority should be to ensure that this spectrum is made available for additional digital terrestrial television (DTT) services at the earliest opportunity, whilst not precluding other possible uses.

Ofcom's goal should be to set rules which seek to guard against future market power arising in end-user markets. Spectrum is not of itself a market and Ofcom needs to consider how to ensure competition in the relevant end-user markets across a variety of services, platforms and content. It may be necessary to consider such devices as spectrum caps and limitations to spectrum holdings within the auction rules, as well as the possibility of regulated access to scarce, bottleneck or essential facilities within non-technical licence conditions.

Ofcom should strive for the earliest possible conclusion of international negotiations and prioritise the auction of the 600 MHz band and geographic interleaved spectrum; an auction in the first few months of 2011 would be optimal.

Answers to the questions in the consultation document

Question 1: Do you have any comments on the application of the protection clause to all new licences for the 600 MHz band and geographic interleaved spectrum?

Although the precise details of the technical licence conditions (TLCs) are not disclosed in this consultation, we note the proposal from Ofcom in the June 2008 consultation on the 800 MHz cleared award that the protection clause would explicitly refer to the detailed coverage/channel plan of the DTT network after switchover. We agree that such a protection clause should be applied consistently for all licences for both the 600 MHz band and geographic interleaved spectrum and would be appropriate for different uses of the spectrum, although the relevance of the protection clause will depend on the nature of the service deployed in that spectrum.

Question 2: Do you have any comments on our approach to technical licence conditions for the 600 MHz band and geographic interleaved spectrum?

We see a successful DTT service now and in the future as extremely important to create effective competition with cable and satellite, therefore technical licence conditions should balance the need to protect existing DTT transmissions while enabling additional services to be brought to the DTT market.

We have not carried out our own studies on the protection of DTT services from interference from mobile transmitters, thus we cannot comment on the Ofcom provisional view of a guard band of at least 8 MHz, nevertheless we note the conclusions of CEPT Reports 30 and 31 in relation to the 800 MHz band which arrived at a 7 MHz separation between the mobile device and the DTT receiver. It would seem appropriate for Ofcom to make a firm proposal on how to protect existing and future DTT from mobile transmitters before the spectrum is awarded, to provide certainty for bidders.

Question 3: Do you have any evidence using frequency offsets with DVB-T2 EC signals might have an adverse impact on uses of adjacent interleaved spectrum?

BT has no comment on this question.

Question 4: Do you have any evidence mobile services using the 600 MHz band and geographic interleaved spectrum could cause harmful interference to cable television?

BT has no evidence specific to the 600 MHz band, however we note the work currently under way jointly between ETSI and CENELEC in relation to a similar issue in the 800 MHz band. The results of that work may be relevant to the 600 MHz band.

Question 5: Do you have any comments on protecting PMSE in channel 38?

BT has no comment on this question.

Question 6: Do you have any comments on non-technical licence issues and the way we propose to approach them?

BT is broadly content with the approach described in relation to determining non-technical licence conditions, where Ofcom will base these on the conditions given in recent licences awarded for the geographic interleaved spectrum in Manchester and Cardiff, with possible modifications depending on the outcome of the spectrum information consultation. We note that there will be a further opportunity to scrutinise the licence conditions in the further consultation on details of the awards for 600 MHz and geographic interleaved spectrum. In general we believe that it is appropriate to ensure that all licences addressing similar or analogous situations should be the same since this aids transparency. Indeed, in pursuit of both transparency and non-discrimination, it may be worth considering including licence conditions in all licences, even where this may replicate, for example, the restriction on ownership of spectrum to operate multiplexes which already applies to broadcasting bodies, e.g. the BBC. This should not have the effect of increasing any restrictions or constraints but may remove complexity and the potential need for bilateral negotiations where future changes to other parallel regulations and policies may otherwise alter such controls, thus ensuring that an equivalent competitive position can readily be maintained.

In principle BT believes that Ofcom needs to carefully consider its policy leading to auction design decisions, to ensure a balance between the promotion of competition, including the possibility of innovation and new business models, with the need to encourage investment, as it has with other programmes, including auctions, under current consideration.

Separately, increasing convergence means that parties are more easily able to leverage power from adjacent markets and over alternative platforms. Ofcom's goal should be to set rules which seek to guard against future market power arising in end-user markets, this may mean considering what "technology neutrality" means in this context. Spectrum is not of itself a market and Ofcom needs to consider how to ensure competition in the relevant end-user markets across a variety of services, platforms and content. It may be necessary to consider such devices as spectrum caps and limitations to spectrum holdings within the auction rules, as well as the possibility of regulated access to scarce, bottleneck or essential facilities within non-technical licence conditions.

Ofcom's recent pay TV statement has focused attention on increasing choice, innovation and competition in the distribution of some TV channels. Both cable TV and "TV over broadband" have commercial and technical limitations on the proportion of UK homes that can be reached for distribution of standard definition TV, and particularly for HDTV. Digital terrestrial TV offers an alternative platform for re-sellers to deliver TV services to more than 90% of UK households. The Digital Dividend spectrum could enable a truly competitive market to develop, where most households have a choice of at least two providers for pay TV services.

If the 600 MHz spectrum is used for TV, it should support the provision of further multiplexes in addition to the existing six. Five of the existing multiplexes support about 35 SD channels; the other supports 4-5 HD channels using new DVB-T2 and MPEG-4 technology. We understand that it is difficult to boost capacity on the existing multiplexes in the short to medium term. If, for example, two additional multiplexes used the new technology then Ofcom's own figures in the consultation indicate that these together could support up to 10 HD channels or around 30 to 40 SD channels, which would nearly double the channel capacity of DTT.

Bearing this in mind, and Ofcom's wish to increase choice, innovation and competition in TV distribution, Ofcom should carefully consider whether any action to encourage market entrants or avoid further strengthening the position of existing leading distributors is appropriate. One option

might be to limit the extent to which existing major players in TV distribution can purchase spectrum, either during or subsequent to any auction.

Finally, BT notes that the earlier Ofcom consultation in 2008 did consider matters relating to the promotion of competition and efficiency. However that was in the context of a joint 600 MHz and 800 MHz auction and the market/regulatory situation prevailing at that time. One conclusion was that a 50 MHz cap on the bids across the 600 MHz and 800 MHz bands should apply. BT considers that these aspects may need to be revisited in view of the fact that it is now proposed to award the 600 MHz band in isolation from 800 MHz, as well as other market/regulatory developments including the one identified above.

Question 7: Do you have any comments on our assessment of the most likely uses of the 600 MHz band and geographic interleaved spectrum? Are there any potential uses we have not mentioned that should be considered?

We agree that DTT is the most likely use of the 600 MHz band, and DTT is the most likely licensed use of geographic interleaved spectrum (with cognitive radio a potential licence exempt use where licences have not been awarded). We would not necessarily agree that mobile broadband is also one of the most likely uses of the 600 MHz band. The lack of harmonisation across Europe for the 600 MHz band and the low prospect of such harmonisation occurring in the future mitigate against a successful commercial deployment of mobile broadband in the UK using 600 MHz spectrum. Further harmonised spectrum suitable for mobile broadband is hopefully to be made available shortly through awards in other bands.

BT questions whether a harmonised allocation at 600 MHz can be achieved across Europe for emergency services use, and we note that there is no detail provided on the actual requirement for such usage to be accommodated in this band. We also note from other sources that a harmonised allocation for the emergency services is being sought at other frequencies such as 450 MHz. We would not favour reservation of the 600 MHz band for such use, but we acknowledge that this should not be precluded and we suggest that emergency services usage of the spectrum could be bid for alongside other uses.

Question 8: Are there any distinctive considerations and uses for this spectrum in the nations and regions of the UK?

BT has no comment on this question.

Question 9: Do you have any comments on our continued inclusion of channel 36 in the award of the 600 MHz band?

BT is content with the inclusion of channel 36 in the 600 MHz band award, rather than awarding this channel separately at an earlier date. However, if it can be made available for actual new use ahead of the remaining spectrum by recovering this channel from PMSE usage, which operates under a twelve month rolling notice period, then this would seem a sensible course.

Question 10: Do you have any comments on our intention to maintain a market-led approach to awarding the 600 MHz band and geographic interleaved spectrum?

BT agrees that a market-led approach is appropriate for the award of the 600 MHz band and geographic interleaved spectrum.

Question 11: What information can you provide on packaging and award design considerations?

It would seem that DTT is the most likely use of the spectrum, and therefore a lot size of 8 MHz is appropriate. International agreements or local interference problems may give rise to the need to use interleaved spectrum to add to cleared spectrum to give coverage in certain areas, and therefore we would recommend flexibility in the auction design to enable bids for selected lots of geographic interleaved spectrum in conjunction with cleared spectrum in order to offer near-national coverage. This leads to the need for all spectrum (600 MHz band and geographic interleaved) to be awarded in a combined process.

Given the somewhat limited spectrum available BT would be content to see only unpaired spectrum awarded in this band since with paired use or mixed paired/unpaired use the duplex gap and other guard bands could form a large percentage of the 56 MHz of spectrum available and may not lead to very efficient utilisation of the spectrum.

We make some comments impacting on auction design in our answer to Question 6. We will provide more detailed comments on the auction packaging and process at a later stage when Ofcom's proposals for the award are clearer, however we would suggest an auction format that enables bidders to obtain and aggregate the number of basic lots that they may require.

Question 12: When would you like to start operating new services using the 600 MHz band and/or geographic interleaved spectrum?

We believe that it is in the public interest for new services to use the cleared spectrum as soon as possible after digital switchover, and the UK is already part way through the switchover process, so frequencies are already available in some regions. We note that the London Olympics will stimulate more households to upgrade their TVs, and to take HDTV services for the first time.

Lead times between the award of spectrum and the start of new services need to allow for negotiation between suppliers, equipment ordering, delivery, installation and testing and these tend to lead to a minimum of 12 months delay before services can start operating. On this basis, the earliest possible award of spectrum would be desirable, and we would request Ofcom to expedite the international negotiations referred to in the consultation, if possible bringing the auction forward into the first few months of 2011.

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