

Question 1: This executive summary sets out our proposals for the Digital Dividend Cleared Award. Do you agree with these proposals?:

Please see our specific responses to the consultation questions, below.

Question 2: Do you agree with our proposal to include the interleaved spectrum in channels 61 and 62 in the cleared award?:

Channels 61 and 62 should be included in the designation of cleared spectrum that is being set for auction. These frequencies are likely to be utilized for advanced mobile services, such as broadband access. However, the frequencies used by DTT stations for these channels should not be reserved for DTT services exclusively. DTT licensees should be allowed to migrate the use of spectrum to other advanced services, and should not be restricted to DTT usage only.

Question 3: Do you agree with our proposal not to allow licence-exempt use of channels 61 and 62 by cognitive devices?:

Yes. Ofcom's policy for Channels 61 and 62 should maximize flexible use as between DTT and mobile uses. The marketplace should determine which use will ultimately prevail, or if both will co-exist. The integration of cognitive devices in this band would appear to be inconsistent with future licensed mobile use.

Question 4: Do you have any comments on our assessment of the most likely uses of the cleared spectrum and the amount of spectrum required for these services? Are there any other potential uses that we should consider?:

As we approach the end of the first decade of the 21st century, two trends are worth noting. First, it is becoming increasingly clear that the Internet is rapidly becoming a video-delivery platform, although the new technology is likely to be more interactive than existing video delivery platforms. Second, wireless broadband access networks have become more available and demand is strong. These two developments may well produce changes in how content-creators deliver their product to consumers, and how consumers choose to receive it. It is not at all clear that the new wireless technologies devoted to video today (e.g., DVB-T or DTT) will be the technologies in use 20 or 30 years from now. Which technologies will prevail is unknown for the present, and any attempt to foretell the future by assigning spectrum to a particular technology would no doubt skew the evolution of technology and services over the coming decades. Ofcom is therefore right to look to maximize a technology-neutral approach to the digital dividend.

As to the amount of spectrum that future diverse uses will require, it is unlikely that mobile networks will be able to operate on a base of just 10 MHz in this band. Narrowband mobile networks are already robust and competitive, and new mobile networks will need to be based on broadband technologies in order to establish competitive differentiation. This means that the likely minimum amount of spectrum required for mobile uses is more on the order of 30 MHz or more, and not 10 MHz.

Question 5: Do you agree that we should proceed with our current timetable, with a view to holding the cleared award in summer 2009?:

Yes

Question 6: Do you have any views on the appropriate notice period for temporary PMSE access to channels 63-68, and/or on whether or not extend temporary access to channels 31-40?:

No comment

Question 7: What are your views on deferring the start date for rights to use cleared spectrum in London to help meet the need for wireless microphones and other audio links for the London 2012 Olympic Games and Paralympic Games?:

No comment

Question 8: Do you agree with the use of SURs as the approach for defining consistent TLCs for this award?:

Spectrum Usage Rights allow the licensee flexibility to use the spectrum for a service or usage of its choice, provided it does not exceed its rights to use the spectrum by causing harmful interference to adjacent licensees. These rights are defined to include limits on both power levels of transmitters, as well as spectral density. Given that the eventual licensees will likely have different uses for the spectrum, properly designed SURs should prove to be a better and more efficient mechanism for guarding against interference relative to an emissions mask approach.

Question 9: Do you have any comments on the SUR parameters listed in Tables 5.1 to 5.5 and the assumptions used to derive them?:

No comment

Question 10: Do you agree with our proposals for managing interference between new services in the DDR cleared spectrum?:

No comment

Question 11: Do you agree that the most efficient and effective means of preventing interference to the existing DTT services is by the addition of a protection clause to licences in the cleared spectrum? If not, what alternative approach would you suggest?:

See the answer to Question 14.

Question 12: Do you agree that the best way to finalise the protection clause approach and to address the practical implementation issues is through direct engagement with interested stakeholders? With which stakeholders should we engage?:

No comment

Question 13: What do you believe would be the implications of protecting indoor/set-top antennas? Should a distinction be drawn between set-top antennas and larger antennas designed for external reception of TV signals that are loft-mounted?:

No comment

Question 14: Do you agree with our proposals for managing interference between new and existing users?:

The proposed rules do not treat DTT and other usage of the band co-equally. The proposed rules would establish protections for DTT transmitters and roof-mounted reception, but no such rules protect the new licensees from future changes in DTT transmissions and transmitter locations. Interference protections work best if they are mutually beneficial and protect the interests of all affected parties.

Question 15: Do you agree with the proposed propagation models and databases to be used for compliance assessment?:

No comment

Question 16: Do you have any comments on the transmit masks set out in paras 5.128 to 5.130?:

No comment

Question 17: Do you agree that where the cleared 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?:

No comment

Question 18: Do you agree that we should facilitate interoperability between existing DTT multiplex operators and new operators using cleared spectrum?:

No comment

Question 19: We welcome views on the relative merits of such an approach to information provision, in particular concerning the type of information that may be helpful and any impacts that publication of information might have both on licence holders and the wider spectrum market.:

No comment

Question 20: Do you agree that the cleared award should include both 8 MHz lots for DVB-T and MMS TLCs and 5 MHz lots for FDD and TDD TLCs across the band?:

Yes

Question 21: Do you agree that the cleared award requires a mixture of frequency-specific and frequency-generic lots to be offered in the auction?:

No comment

Question 22: Do you agree with the proposed outline definition of lots suitable for MMS, DVB-T, TDD and FDD applications?:

No comment

Question 23: Should the flexibility to bid for lots defined on both fixed and variable-frequency rasters be preserved in the auction? If not, which are preferred?:

No comment

Question 24: Do you agree with the proposed basis for awarding Channel 38 as a distinct lot in the auction?:

No comment

Question 25: Do you agree with the proposed structure of frequency rules for allocating different licence types in the auction? Are there any amendments that would improve the efficiency of spectrum allocation via an auction?:

No comment

Question 26: Do you agree with our proposal to proceed on the basis of UK-wide lots?:

Yes. The advanced services that will develop in these bands will best succeed if supported by a business case for a nationwide footprint.

Question 27: Do you favour including the available cleared spectrum in (a) Guernsey and (b) Jersey in the geographic coverage of the licences to be awarded? If not, what approach do you favour instead?:

No comment

Question 28: Do you agree that the combinatorial clock auction is the most suitable auction design for the cleared DDR award?:

No comment

Question 29: What potential simplifications, if any, could be made to the proposed lot structure for DVB-T, MMS, TDD and FDD lot categories which would still reflect the most important differences in value between lots?:

No comment

Question 30: Do you have any comments on our proposals for the Application and Qualification Stages of the combinatorial clock auction for the cleared DDR award, including our proposals for initial deposits?:

No comment

Question 31: Do you consider that it is important to distinguish relative weightings in advance between the eligibility points of the different 1 MHz blocks available in this award? If so should this be restricted to channels 36, 38, 61 and 62 and what do you consider these relative weightings should be?:

No comment

Question 32: Do you have any views on whether an ex ante eligibility points activity rule or a revealed preference activity rule should be used in this award?:

No comment

Question 33: Do you have any views on whether there should be restrictions on bidders' ability to bid on multiple technical licence types within single package bids or between different rounds of the auction and whether bidder association rules should potentially be adjusted to cater for any such restrictions being imposed?:

No comment

Question 34: Do you have any further comments on any aspect of our proposals for the Principal Stage of the combinatorial clock auction for the cleared DDR award?:

No comment

Question 35: Do you have any comments on any aspect of our proposals for the Assignment Stage or the Grant Stage of the combinatorial clock auction for the cleared DDR award?:

No comment

Question 36: Do you agree with our approach to assessing whether the award of cleared spectrum fully promotes competition and efficiency? :

The analytical approach proposed here is useful and should be adopted.

Question 37: Do you have particular concerns about possibilities for award outcomes to fail to fully promote competition in downstream markets or to result in inefficient use of spectrum? If so, please explain what these are and provide supporting evidence.:

No

Question 38: Do you agree with our view that we should introduce a general safeguard cap aimed at promoting diversity of spectrum holdings? Do you have views concerning the level of such a cap?:

As proposed, the 50 MHz cap would not unduly constrain interested parties from acquiring spectrum needed for commercial delivery of advanced services, and would not apply to subsequent licence holdings. We agree that the cap should be adopted in order to help encourage a competitive market and efficient use of the spectrum to be auctioned.

Question 39: Do you agree with our proposals to include an information provision licence condition to help facilitate efficient secondary trading?:

Yes

Question 40: Do you agree with our view that we should not apply any other general remedies in the cleared award?:

Ofcom has correctly analyzed the general remedies and has correctly concluded these should not be applied. With respect to roll-out requirements, the relatively compact size of the United Kingdom has heretofore not presented substantial issues with

respect to national service delivery, and there is no reason to believe that a different result would pertain for networks being built below 1 GHz. Similarly, 'use it or lose it' requirements are susceptible to significant error, and may actually impede efficient use of the spectrum as spectrum uses evolve over time. In addition, requirements to wholesale the spectrum to others would appear to be out of place and unnecessary. Ofcom is moving in other bands to make spectrum available for advanced services such as mobile broadband. It appears virtually certain that multiple such networks will compete in the marketplace. There is no strong case for imposing an access requirement under these circumstances.

Question 41: Do you agree with our identification of the three areas requiring further attention?:

No comment

Question 42: Do you agree with our assessment that the limitations on the amount of cleared spectrum available for mobile broadband applications, and the particular advantages of sub 1GHz spectrum, could result in an outcome where there are limits on the level of competition possible in the provision of these services?:

Benefits to mobile broadband networks built using spectrum below 1 GHz are largely those derived from the laws of physics in that carrier waves travel long distances and through walls. As a result, it may be possible in certain circumstances to have fewer base station transmitter locations, although this benefit is likely to be felt more noticeably in rural areas. In urban areas, the benefits will be attenuated due to the need to design networks for spectral reuse, and due to the practical issues associated with antenna placement.

In addition, networks built below 1 GHz will come to market already competing against existing and established 3G networks in other bands, as well as new networks at frequencies above 1 GHz. Consumers are not likely to make purchase decisions for services based on spectrum frequencies – but on a more complex mix of customer service, quality of service, relative need for high capacity throughput, and other issues. The network that can attract market share will be the one that is successful with respect to this longer list of attributes – not by virtue of a particular frequency band. In sum, we disagree that spectrum acquired for mobile broadband use may raise unique competition policy concerns.

Question 43: Do you think that a soft spectrum cap on either (a) the cleared spectrum suitable for mobile broadband applications alone, or (b) the holding of any sub 1GHz spectrum suitable for mobile broadband applications, which would trigger action if a significant competition concern emerges in relation to the market structure in the future mobile broadband market, could be an appropriate approach to these concerns?:

Consistent with our answer to Question 42, we believe that a soft spectrum cap or any other condition that would trigger further conditions (such as access conditions) on the use of mobile broadband spectrum is unnecessary and could result in bidders failing to acquire sufficient spectrum to offer robust broadband offerings throughout the UK.

Question 44: Do you agree with our assessment that issues in the pay TV market are not at this stage primarily an issue for the cleared award?:

No comment

Question 45: Do you agree with our initial assessment that we should not intervene further in the cleared award to remedy any potential impact on competition resulting from the holding of cleared spectrum by NGW/Arqiva?:

No comment

Comments: