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Consultation on “Award of available spectrum: 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz”

The WiMAX Forum™¹ welcomes the opportunity to provide its views and comments in response to the Ofcom consultation on “Award of available spectrum: 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz” published on 11 December 2006 with responses due on 9th March 2007.

The WiMAX Forum is an industry-led, non-profit corporation formed to promote and certify the compatibility and interoperability of broadband wireless products using the IEEE 802.16 and ETSI HiperMAN wireless MAN specifications. The WiMAX Forum’s goal is to accelerate the introduction of these devices into the marketplace. WiMAX Forum Certified™ products will be fully interoperable and support Metropolitan Broadband Fixed, Portable and Mobile Applications. For more information about the WiMAX Forum and its activities, please visit www.WiMAXForum.org. WiMAX Forum™ and WiMAX Forum Certified™ are registered trademarks of the WiMAX Forum™.

The WiMAX Forum respectfully submits the comments in Annex 1 with regard to the consultation document identified above.

Yours Sincerely

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Annex 1

Award of available spectrum: 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz

Introduction

The 2500 – 2690 MHz band is of particular interest to the WiMAX Forum and many of its (currently well over 400) member companies. This specific frequency range is addressed by the WiMAX System Profile for Mobile WiMAX (IEEE 802.16e-2005, OFDMA) equipment and its associated Certification Profile for TDD equipment based on 5MHz and 10MHz channel widths. The timescales of the UK award align well with the anticipated availability of certified products for mobile WiMAX in this frequency band.

The WiMAX Forum supports more technology neutral spectrum licensing and therefore welcomes the approach that Ofcom proposes to take in relation to the award of this spectrum. For information, the WiMAX Forum would like to mention that the IEEE 802.16e technology on which mobile WiMAX is based has entered the process within the ITU to be considered as a 6th air interface of IMT-2000.

The WiMAX Forum supports the award of the 2.6 GHz band at the earliest opportunity in order to enable presently unsatisfied market demand for high speed personal broadband services to be addressed and to give service providers the option to select mobile WiMAX technology.

Some detailed points within the Ofcom consultation may be better addressed by some of our individual member companies. Therefore we have provided answers below to those questions where our members have common views and in relation to points where there are already established WiMAX Forum policies.

Question 1: Do you agree with these proposals for the awards of the three bands or have any other comments on the contents of this document?

The WiMAX Forum fully supports Ofcom's plans to make the 2.6 GHz band available as soon as possible and in a technology neutral manner.

Question 2: Do you agree with the analysis in section 5 or have any comments on adjacent interference issues?

The WiMAX Forum appreciates the technical work that Ofcom has commissioned in relation to the 2500-2690 MHz award. The WiMAX Forum has contributed extensively to studies in the ITU on the FDD/TDD compatibility issue and will also shortly publish a White Paper on this topic..

Question 3: Do you agree that Ofcom should authorise use of the spectrum bands 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz?

Yes.

Question 4: Do you agree that awarding licences by auction would be the appropriate mechanism for authorising use of the spectrum bands 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz?

The WiMAX Forum has no position on how spectrum should be awarded.

Question 5: Do you agree that it is likely to be in the interests of citizens and consumers to proceed with the award of the 2.6 GHz and 2010 MHz bands as soon as practicable, rather than to delay the award pending reduction in uncertainty relating to other bands?

Yes.

Question 6: Do you agree Ofcom should aim to award the bands 2500-2690 MHz, 2010-2025 MHz and 2290-2300 MHz by the end of 2007, while keeping the position on the 2.6 GHz and 2010 MHz bands under review in the light of possible developments in European regulatory fora?

The WiMAX Forum supports the award of the 2500 – 2 690 MHz spectrum at the earliest opportunity and in a technology neutral manner.

Question 7: Do you agree with Ofcom's proposals for licence conditions (technology neutrality, tradability, conditions of tenure and absence of roll-out obligations)?

The WiMAX Forum has no comments on Ofcom's proposals.

Question 8: Do you have views on whether or not there should be a "safeguard" cap on the amount of spectrum that any one bidder could win in an award for the 2.6 GHz bands and, if so, do you have a view on whether 90 MHz would be an appropriate size for a safeguard cap?

The WiMAX Forum has no comments on Ofcom's proposal.

Question 9: Do you agree with Ofcom's proposal to package spectrum as lots of 2 x 5 MHz for paired use and 5 MHz lots for unpaired spectrum and to allow the aggregation of lots by bidders?

The WiMAX Forum notes that this proposed packaging arrangement is compatible with present WiMAX certification profiles and is hence supported by the WiMAX Forum.

Question 10: Do you agree with Ofcom's proposed approach to allowing the respective amounts of paired to unpaired spectrum for the band 2500-2690 MHz to be varied (maintaining the 120 MHz duplex spacing and allowing additional unpaired spectrum, if needed, at the top end of the band)?

The WiMAX Forum agrees that this approach would be suitable to support WiMAX equipment deployment and operation.

Question 11: Do you agree with Ofcom's proposals for a 5 MHz restricted block between FDD and TDD neighbours and between TDD and TDD neighbours and with a modified out-of-band base station mask for second adjacent 5 MHz blocks?

The WiMAX Forum concurs that this is a valid technical solution.

Question 12: Do you agree with Ofcom's proposals to award the 2010 MHz band as a single 15 MHz lot?

The WiMAX forum has no comments on this issue.

Question 13: Do you agree with Ofcom's proposals to award the 2290 MHz band as a single 10 MHz lot?

The WiMAX forum has no comments on this issue.

Question 14: Do you agree with Ofcom's proposals to combine the award of the 2.6 GHz and 2010 MHz bands and to hold the award of the 2290 MHz band separately and in advance?

The WiMAX Forum encourages Ofcom to award the 2.6GHz band at the earliest opportunity. The pairing with other bands is not a requirement from the WiMAX Forum.

Question 15: Do you agree with Ofcom's proposals for a two-stage auction design for the 2.6 GHz and 2010 MHz bands?

The WiMAX Forum has no comments on the detailed award or particular auction process that the UK should use. However, we note that it appears to be flexible and suitable to support WiMAX as well as many other technologies that could require various amounts of paired or unpaired spectrum (depending on many factors including the operators' business cases, technology choice and particular network design).

Question 16: Do you agree with Ofcom proposals to award the 2290 MHz band through a second price sealed bid auction?

The WiMAX Forum has no comments.

Question 17: Do you have a preference for either of the two approaches to specifying technical licence conditions?

The WiMAX Forum has no comments on this detailed national licensing issue.

Question 18: Do you have any comments on the transmitter spectrum masks defined below?

The WiMAX Forum is presently finalizing the precise details of the spectrum masks for mobile WiMAX equipment for this frequency band. The Forum supports spectrum masks that are compatible with WiMAX technology.

Question 19: Do you have any comments on the SUR parameters defined below?

The WiMAX Forum has no comments on this detailed national licensing issue.

Question 20: Do you have any comments on the SUR methodology and assumptions detailed in this annex?

The WiMAX Forum has no comments on this detailed national licensing issue.

Question 21: Do you have any comments on the use of the Visualyse tool as described, on the assumptions or the propagation model proposed in this annex?

The WiMAX Forum has no comments on this detailed issue.

Question 22: Do you have any comments on the assumptions detailed in this annex?

The WiMAX Forum has no comments.

End