



Response to

Ofcom's Consultation

on

Public Sector Spectrum Release (PSSR)

Award of the 2.3 GHz and 3.4 GHz bands

by

Angie Communications International B.V.

February 27, 2015

**Question 4.1: Do you agree with our proposals for categories and lot sizes in the auction? If you disagree please provide evidence for your position.**

In its response to this consultation, Huawei<sup>1</sup> has given reasonable evidence that lots should be at least 20MHz and preferably 40MHz, simply because anything may not be practical in terms of bandwidth. While this may be true, it would also reduce the probability of success to acquire spectrum, or at a very high cost for new entrants such as Angie.

In their responses, BT and Three express their preference of minimum block sizes of 10MHz. BT cites the possibility of strategic bidding and as a result the complication of the bidding process. Three cites the disproportionately high investment required to deploy just 5 MHz worth of spectrum.

In this regard, we agree with BT and Three that the minimum block size should be 10 MHz.

**Question 4.2: Do you have any other comments or views relating to the overview of the spectrum?**

No, we do not have any other comments in this regard.

**Question 5.1: Do you agree with our proposals for achieving contiguity, and if not please provide further explanation.**

In their response, UK Broadband confirms to agreeing to Ofcom's proposals, and we believe this is an important achievement.

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<sup>1</sup> Response by Huawei, January 23, 2015. <http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/Huawei.pdf>

**Question 6.1: Do you agree with our recommendation for an SMRA? If not, please explain why.**

In this regard, several responders have given their opinion. After careful deliberation, we do not agree with Ofcom's proposal for an SMRA.

We believe Ofcom should pay heed to the auction proposal from Three that rectifies some perceived problems with Ofcom's SMRA concept.<sup>2</sup>

**Question 6.2: Do you agree with our proposals for the SMRA (including withdrawals, minimum requirements and waivers)? Do you have any other comments or views on this proposal?**

See our answer to Q.6.1., above.

**Question 6.3: Do you agree with our proposals for the CCA? Do you have any other comments or views on this proposal?**

For the reasons cited by Three, we recommend Ofcom to consider the modifications proposed by Three, if Ofcom were to proceed with CCA.

**Question 6.4: Do you agree with our proposals for the assignment stage? Do you have any additional views or comments?**

Yes, we agree.

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<sup>2</sup> As set forth in Section 1 of their response (<http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/Three.pdf>) and in their Annex 1 ([http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/Three\\_Annex\\_1.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/Three_Annex_1.pdf)), PREPARED BY Power Auctions LLC.

**Question 6.5: Do you have any other comments on auction design?**

See our answers to Q.6.1 and 6.3., above.

**Question 7.1: Do you agree with our approach to considering what spectrum is relevant to this competition assessment? Please give reasons for your views.**

Yes, we agree with Ofcom's approach in this regard.

**Question 7.2: Do you agree with our view that spectrum at 800 MHz, 900 MHz, 1.4 GHz, 1.8 GHz, 2.1 GHz (paired only), 2.3 GHz, 2.6 GHz and 3.4 GHz is relevant for this competition assessment? Please give reasons for your views.**

Yes, we agree with Ofcom's view in this regard.

**Question 7.3: Do you agree that very asymmetric spectrum holdings could give rise to competition concerns? Please give reasons for your views.**

Yes, we agree. We also concur with the succinct response provided by UK Broadband in this regard. Furthermore, we request information on Ofcom's action (if any) with regards to BT's 2.6 GHz holdings once it would finalize its acquisition of EE.

**Question 7.4: Do you agree with our proposal to impose an overall spectrum cap in the auction equivalent to the overall spectrum cap in the 2013 auction? If our assessment of what spectrum is relevant is correct, do you agree with the proposal for an overall spectrum cap at 310 MHz? Please give reasons for your views.**

Yes, we agree that an overall spectrum cap should be used in this auction.

As a large new entrant, we recommend Ofcom to pursue Option 4, spectrum reservation, in combination with Option 3.

In the same regard, we support the overall assessment of H3G (preferring option 3 rather than Ofcom's preferred option 2), but we do not support Three's proposal to exclude 3.4 GHz from this cap.

**Question 7.5: Do you agree with our proposals to amend the Mobile Trading Regulations shortly before the PSSR award so as to include relevant spectrum at 1.4 GHz, 2.3 GHz and 3.4 GHz? Please give reasons for your views.**

Yes, we agree that the MTR should be amended to include 1.4 GHz, 2.3 GHz and 3.4 GHz. We concur with Three's request that Ofcom must amend these regulations immediately.

**Question 7.6: Do you have any other comments on our assessment of competition effects from the award?**

Angie has no further comments in this regard.

**Question 8.1: Do you have any comments on the proposals relating to the duration of the initial licence period, our rights to revoke the licence during this period, the charging of licence fees after the end of the initial period and our additional revocation powers following the initial period?**

We agree with Ofcom's approach, and we concur with UK Broadband's response in this regard.

**Question 8.2: Do you have any comments on our proposals relating to the territorial extent in the award licences?**

Angie will roll out on a nationwide basis. We concur with the approach, recommendations and concerns set forth by Three and UK Broadband in this regard.

**Question 8.3: Do you have any views on the merits of the proposed 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?**

We concur with the objections and concerns stated by EE in this regard.

We also concur with BT with regards to 24dBm power level threshold for record keeping, and in the case of in-building cells. We'd like to note that this should include those in-building cells and femtocells (or any other device) that are *not* within end customers premises.

**Question 8.4: Do you have any comments on other proposed non-technical licence conditions and the draft licences at Annexes 8 and 9?**

We concur with the concerns stated by EE in this regard.

Furthermore, we request Ofcom to include some provisions where licensees would be held to utilizing these bands and thus not “hoard” spectrum. The “use it or lose it” approach would come closest to what we recommend.

We also recommend Ofcom to include some either/or approach, for example, by way of enabling/requiring dynamic sharing, or multi-year leases, especially if the spectrum is unused by the licensee.

**Question 9.1: Of our two possible options to encourage or mandate synchronisation do you prefer Option 1 or Option 2? Please explain your preference for the option and let us know if you have other comments or suggestions.**

We concur with UK Broadband’s assesement and support their proposal for the third option, which is to allow operators to agree a synchronized frame structure.

**Question 9.2: Do you agree with our proposed frame structure of LTE configuration 2 or equivalent?**

No, Angie does not support mandated frame structure configuration. In this regard we concur with the assessment by EE in their response to this consultation.<sup>3</sup>

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<sup>3</sup> Response by EE, page 27. [http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/EE\\_response.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/2.3-3.4-ghz-auction-design/responses/EE_response.pdf)

**Question 9.3: Do you agree with our proposal that indoor small cells, with power levels up to 24 dBm, do not need to synchronise?**

Yes, we agree, and we concur with BT in this regard.

**Question 9.4: Do you agree with our approach in the Inter-operator Synchronisation Procedure?**

Yes, we agree with Ofcom's approach.

**Question 9.5: Do the parameters to be provided in the Inter-operator Synchronisation Procedure give you sufficient certainty at the time of the award for your future deployments? If not can you provide further information on what extra detail information would need to be covered?**

Please see answer 9.2.

Were Ofcom to proceed with this procedure, we believe the described parameters provide sufficient certainty.

**Question 9.6: Would any of the potential changes to the procedure that we have considered made within the first 12 months following the award have a significant impact to a network that has been deployed in the interim? If so please explain any concerns.**

No specific comment. Since it is not entirely clear which elements of the procedure could be subject to change, we cannot -as of yet- quantify the ramifications of such changes. We do, however, concur with the concerns stated by EE in their response in this regard.



**Question 9.7: Do you agree with our approach for power control for femto cells?**

We concur with BT's specific remarks in this regard.

**Question 9.8: Do you agree with our position to adopt the new power limits above 2403 MHz?**

Yes, we agree. We also urge Ofcom to consider the upcoming arrival of mmWave networks, where new power levels should be allowed.

**Question 9.9: Do you agree with our position with regard to the out of block levels applicable in UK Broadband's spectrum holding of 3605 - 3689 MHz?**

Angie agrees that these should be aligned.

**Question 9.10: Do you have any other comments on the proposed technical licence conditions and the draft licences attached at annexes 8 and 9?**

Angie has no further comments.