



Commission for
Communications Regulation

3.6 GHz Band Spectrum Award

Response to Consultation on the draft
Information Memorandum

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An Coimisiún um Rialáil Cumarsáide
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Chapter 1

1 Introduction and background

- 1.1 The purpose of this document is to set out the Commission for Communications Regulation's ("ComReg") response to submissions received to Document 16/22¹ (the "draft Information Memorandum" or the "draft IM") and to set out its final position on the Information Memorandum ("IM") concerning the award of a limited number of individual rights of use in the 3 400 – 3 800 MHz ("3.6 GHz") frequency band ("Award Process").
- 1.2 Document 16/22 was published following the publication of ComReg's draft Decision on the Award Process (as contained in Chapter 8 of Document 15/140²), and it set out ComReg's proposals on the processes and procedures for implementation of the Award Process as then detailed in Document 15/140³.
- 1.3 ComReg received three submissions in response to Document 16/22⁴, being from:
- Imagine;
 - Three Ireland Hutchinson Limited (3IHL); and
 - Vodafone Ireland Limited.
- 1.4 ComReg also received a further submission from Imagine on the Award Process, which was published in Document 16/55.
- 1.5 In addition, correspondence received from Permanet, Ripplecom, Net1 and Lightnet and ComReg's response to same is contained in Annex 1 to this document.
- 1.6 Since Document 16/22 was published, ComReg has published its Response to Consultation and final Decision on the Award Process in Document 16/57⁵. A number of the issues raised by respondents to Document 16/22 have already been considered and decided upon in Document 16/57 and, where this has

¹ ComReg Document 16/22 – Draft Information Memorandum on Proposed 3.6 GHz Band Spectrum Award – published 16 March 2016.

² Document 15/140 – Response to Consultation and Draft Decision on Proposed 3.6 GHz Band Spectrum Award – published 22 December 2015.

³ Document 16/22, the Draft Information Memorandum and associated materials were prepared, in the main, while ComReg was awaiting the responses and submissions of Interested Parties to Document 15/140. Clearly, ComReg's full consideration of the submissions to Documents 15/140 and 16/22 as well as its final evaluation of the matters at issue, may result in appropriate changes to the text of the draft Information Memorandum (16/22) and its associated materials.

⁴ Document 16/35 contains the non-confidential responses received to ComReg Document 16/22.

⁵ Document 16/57 – Response to Consultation and Decision on Proposed 3.6 GHz Band Spectrum Award – published 11 July 2016.

occurred, this document will refer readers to the relevant sections of Document 16/57. ComReg considers and addresses any outstanding issues raised in these submissions in Chapter 2 below.

- 1.7 In light of its Decision (Decision 04/16) as set out in Chapter 8 of Document 16/57 and its consideration of all relevant outstanding issues in this Response to Consultation document, ComReg has, alongside this publication, published the text of its IM for the Award Process in Document 16/71.
- 1.8 ComReg has given careful consideration to all the material submitted by Interested Parties as well as to all other relevant information before it. All discussions concerning this Award Process included in previous consultation documents or in response to previous consultation documents should be regarded as having been considered in full in the preparation of this response to consultation and the associated documents.
- 1.9 While ComReg has formed its own views in arriving at its final positions as set out in this document, ComReg points out that it has carefully considered the expert external advice provided to it throughout this process.
- 1.10 Throughout this consultation process, ComReg has been guided by the statutory functions, objectives and duties relevant to its management of Ireland's radio frequency spectrum (which are set out in Annex 2 of Document 16/57) and the findings of its regulatory impact assessments (which are set out in Chapter 3 and Annex 5 of Document 16/57).
- 1.11 This document is structured as follows:
 - Chapter 2: sets out ComReg's response to the issues raised by respondents to Document 16/22;
 - Chapter 3: summarises any other updates and changes made to Document 16/22; and
 - Chapter 4: sets out ComReg's view on relevant next steps in relation to this Award Process.
 - Annex 1: Correspondence received on behalf of Permanet, Ripplecom, LightNet and Net1, and ComReg's response to same
- 1.12 Readers might also note that:
 - DotEcon's views and recommendations, as they relate to and address respondents' views, are set out in Document 16/70a being published alongside this Response to Consultation; and
 - DotEcon's Benchmarking Update Document 16/70b is also published alongside this Response to Consultation.

Chapter 2

2 Response to submissions received to Document 16/22

2.1 This chapter sets out ComReg's response to the issues raised by respondents to Document 16/22 concerning the following topics:

- Refund and adjustment of licence fees;
- Winner and base price determination procedure;
- Stability of the Award Process;
- Bidder training schedule⁶;
- Assignment process;
- Eligibility points;
- Deposit call following Assignment Round;
- Bidder exclusion;
- Award schedule; and
- Random selection procedure.

2.2 ComReg also notes that a number of other issues were raised by respondents in relation to both Document 16/22 and Document 15/140. These issues have already been considered separately in Document 16/57⁷ and will not be repeated here. These relate to:

- the voice call standard in the proposed Quality of Service obligation (3IHL). See paragraphs 6.44 to 6.45 and 6.47 to 6.55 in Section 6.6 of Document 16/57;
- the treatment of 3.6 GHz spectrum rights in any spectrum competition cap relating to a future award of the 2.6 GHz band (Vodafone). See paragraphs 5.34 and 5.38 to 5.42 in Section 5.5 of Document 16/57; and

⁶ Ripplecom and Permanet provided submissions to Document 15/140 related to this point. ComReg noted in Document 16/57 that it will provide further detail on the bidder training arrangements in the Final Information Memorandum and hence their submissions are also taken into account in ComReg's response below.

⁷ ComReg's Response to Consultation and Decision on Proposed 3.6 GHz Band Spectrum Award.

- the announcement of a clear timescale for the assignment of 2.6 GHz spectrum prior to the award of the 3.6 GHz band (Vodafone). See Para 6.14 of Document 16/50⁸.

2.1 Refund and adjustment of Licence fees

Summary of ComReg's view in Document 16/22

- 2.3 In Section 2.4.3 ComReg proposed that it may refund or adjust Licence fees payable by Winning Bidders due to the delayed access to Lots in circumstances outside ComReg's reasonable control.
- 2.4 Section 2.4.7 detailed the methodology for the proposed refund of Licence fees payable to Winning Bidders or the adjustment of Licence fees payable by a Winning Bidder as the case may be, in the event of delayed access to Lots beyond the commencement date of 1 August 2017. For each delay, ComReg specified that this refund or adjustment of Licence fees would be calculated, in summary, as:
- a pro rata portion of the Upfront Fees already paid by the Winning Bidder on a daily basis for each whole day following the commencement date of 1 August 2017 (or other commencement date as established by ComReg) that ComReg does not make the Lot available for use; and
 - a pro rata portion of Spectrum Usage Fees (SUFs) already paid by the Winning Bidders on a daily basis for each whole day following the commencement date of 1 August 2017 (or other commencement date as established by ComReg) that ComReg does not make the Lot available for use.
- 2.5 In order to calculate the Upfront Fee associated with a Lot, ComReg proposed the use of round prices in the final Primary Bid Round and other relevant information.

Views of respondents

- 2.6 3IHL notes that the use of final Primary Bid Round prices gives at best only an approximation of the Upfront Fee attributable to any particular Lot and that the Upfront Fees will be significant for any Bidder.
- 2.7 Given that there is some uncertainty regarding the duration of any delay, 3IHL submits that interest should be applied to the refunds at an appropriate rate and

⁸ ComReg's Radio Spectrum Management Strategy 2016 to 2018.

that the discount rate applied in deriving the minimum price is an appropriate interest rate.

ComReg's assessment and final position

Use of final Primary Bid Round prices

- 2.8 With package bidding (where bids are made for packages of lots rather than individual lots), Base Prices for a package of Lots often cannot be broken down to Lot-specific prices. In the event of delayed access to Lots, there may therefore not be an explicit Lot price for an individual Lot or Lots subject to delay from which to calculate the portion subject to a refund.
- 2.9 In the absence of a price per Lot from which to calculate refunds in the event that these become due, Round Prices in the final Primary Bid Round (or, more specifically, the relative Round Prices across Lots) provide an approximation of the price per Lot that winners will pay. This will be used with other relevant information (i.e. the duration of the delay for the Lot and the duration of the underlying Licence) to calculate the value of the refund due for the Lots subject to delay. Specifically, the Base Price of a winning package will be allocated pro rata to its constituent Lots according to the relative Round Prices of those Lots in the final Primary Bid Round.
- 2.10 ComReg is of the view that this approach provides a transparent and objective method of obtaining an approximate price per Lot where no alternative is available from which to accurately calculate the extent of the refund due to delayed commencement. ComReg is therefore of the view that it is not necessary to modify the text of the Draft IM in relation to this calculation and that it is appropriate that the final Primary Bid Round will be used to calculate the value of the refund due for the Lots subject to delay.

Interest Rate

- 2.11 ComReg notes that Deposits are held to ensure that an Applicant or Bidder is committed to the Bids they make, and to facilitate the payment of the Upfront Fee. In that regard, it has been ComReg's policy that any interest earned from monies held on behalf of an Applicant or a Bidder should accrue to those parties.
- 2.12 Similarly, in relation to interest applying to refunds associated with delayed commencement, ComReg considers it appropriate to amend the Draft IM to provide that any monies held by ComReg which are subsequently refunded should include any interest earned during the period of delayed commencement.
- 2.13 Furthermore, ComReg considers that any financial fees charged to ComReg as a result of holding Deposits should be subtracted from the amounts held.

- 2.14 ComReg does not, however, consider 3IHL's suggestion to apply the discount rate used in deriving the minimum price to be appropriate. In particular, this discount rate reflects a mobile industry operator's cost of capital⁹, and is used to incentivise licensees to return unused or under-utilised spectrum especially when viewed over the long term.
- 2.15 Given that ComReg currently intends to use all monies received from each Applicant to purchase National Treasury Management Agency (NTMA) Exchequer Notes¹⁰, ComReg is of the view that the interest rate applicable to these notes is the more appropriate rate.
- 2.16 As noted above, ComReg is of the view that any interest earned by ComReg for the period of a delayed commencement should be paid by ComReg to Applicants on funds received by it during the Award Process. However, ComReg notes that the current rate of interest on NTMA Exchequer Notes is zero per cent and the rate of interest associated with the NTMA Exchequer Notes purchased by ComReg could be negative. For the avoidance of doubt, in such circumstances, all monies held by ComReg in the form of a Deposit or refunded to Bidders as a result of delayed commencement will be calculated less the amount of any negative interest accrued over the period the monies have been held by ComReg. For example, in the case of Deposits, this may require a Bidder to increase its Deposit above 100% of its highest Bid if monies held by ComReg are subject to negative interest rates (See Chapter 4 of the IM).
- 2.17 The above approach to interest rates, whereby all monies held by ComReg in the form of a Deposit or refunded to Bidders as a result of delayed commencement are subject to the prevailing interest rate (which could be either positive or negative) ensures that ComReg will neither:
- benefit from any monetary gain resulting from positive interest rates; nor
 - suffer any monetary loss resulting from negative interest rates.
- 2.18 Therefore, ComReg has determined that the IM should confirm that interest will apply to refunds associated with delayed commencement and the interest rate applicable will be that which applies to the NTMA Exchequer Notes purchased by ComReg. The IM has been amended accordingly (see Sections, 2.4.7, 3.3.3, 4.2.2, 4.2.5 and 4.3.8 of Document 16/71).

⁹ See Section 6 and Table 7 of ComReg Document 14/136 - Cost of Capital.
http://www.comreg.ie/_fileupload/publications/ComReg14136.pdf

¹⁰ Although, ComReg reserves the right to manage all monies held in accordance with good treasury management.

2.2 Winner and Base Price determination procedure

Summary of ComReg's view in Document 16/22

2.19 Section 3.5.3 (paragraph 3.154) set out that Bidders will be provided, well in advance of the Auction, with a stand-alone version of the winner and price determination (WDP) software that can be used to process test cases. ComReg noted that this should help Bidders with understanding the mechanics of the WDP procedure, and to verify the algorithm used.

Views of respondents

2.20 3IHL requests that ComReg clarify early whether it is expected that the WDP software can be run on standard PCs or whether a higher specification will be required.

ComReg's assessment and final position

2.21 ComReg notes DotEcon's observation that the current expectation is to provide access to the WDP software as an online tool accessible using an internet browser, rather than as an executable file to be run on Bidders' computers. Therefore, there would be no special hardware requirements for users.

2.22 The precise approach for providing access to the WDP software and the browser requirements will be determined by ComReg with advice from DotEcon during the implementation stage of the project following the publication of the IM, and Bidders will be notified as soon as possible of any relevant requirements.

2.3 Stability of the Award Process

Summary of ComReg's view in Document 16/22

2.23 Section 4.2.2 (footnote 102) stated that ComReg reserves the right to make amendments to the Auction Rules after the finalisation of the IM to correct any errors therein, or to further clarify matters, whether identified by ComReg, its consultants or Interested Parties, where such amendments are necessary or appropriate to ensure that the Auction Rules and the Electronic Auction System (EAS) operate in the manner intended by ComReg, as set out in the IM. ComReg would promptly bring any such amendments to the attention of Interested Parties.

2.24 Table 9 set out the indicative timeline for the first two stages of the Award Process (i.e. Application Stage and the Qualification Stage) where ComReg reserved its right to vary these indicative timelines as may be necessary, in

order to take account of any changed or unforeseen circumstances. ComReg in doing so would give appropriate notification to Interested Parties for example, by issuing a public notice on its website or giving notice to selected parties, such as Applicants or Bidders, depending on the stage of the Award Process.

Views of respondents

2.25 Vodafone submits that in order for it to prepare for the Auction, the format and rules should be kept stable for as long a time as possible before the auction date.

ComReg's assessment and final position

2.26 ComReg acknowledges Vodafone's concern but considers that, for the reasons set out below, Bidders will have sufficient certainty around the format and rules of the Award Process to allow them to prepare for the Auction.

2.27 ComReg notes DotEcon's observation in Document 16/70a that, based on the comments received to Document 16/22, there does not seem to be any need to make substantive changes to the Auction Rules. DotEcon further notes there will be mock auctions for all Bidders to help them familiarise themselves with the final Auction Rules.

2.28 ComReg has considered the views of respondents to Document 16/22 and also DotEcon's opinions in this regard and are of the view that there are no substantive changes required to the Auction Rules based on the submissions received to Document 16/22.

2.29 While ComReg does not envisage any further changes to the Auction Rules prior to the commencement of the Award Process, it reserves the right to amend the IM or Award Process in any respect, as set out in Section 5.2.9 of the IM, which states that:

"ComReg reserves, at its discretion, the right, at any time until the conclusion or termination of the Award Process, to amend or modify this Information Memorandum or Award Process in any respect, including the shortening or extension of any and all timelines, by way of clarification, addition, deletion or otherwise. ComReg will inform Interested Parties of any such amendments or modifications, if appropriate."

2.30 Among other things, such amendment may be required:

- to further clarify matters (e.g. where new information is available); or

- to correct any errors identified by ComReg, its consultants or Interested Parties¹¹.

2.31 In making such amendments, ComReg would give appropriate and timely notification by issuing a public notice on its website or giving notice to relevant parties, such as Applicants or Bidders, depending on the stage of the Award Process.

2.4 Bidder training schedule

Summary of ComReg's view in Document 16/22

2.32 Section 3.2 described the overall structure of the Award Process. Table 9 set out the indicative timelines for the first two stages of the Award Process. This included indicative timelines for the release of information on the Award Process for:

1. The Application Stage, including:
 - Publication of IM on ComReg's website;
 - Presentation to Interested Parties on the Award Process and the Auction Rules; and
 - Deadline for submission of questions regarding the Award Process;
2. The Qualification Stage, including:
 - Circulation of materials for accessing and using the EAS to Bidders; and
 - Start of mock auctions for Bidders.

Views of respondents

2.33 Vodafone submits that the timings identified in Table 9 of Document 16/22 should not be compressed.

2.34 Ripplecom and Permanet¹² welcomes the proposals to keep the complexity to a minimum and, most importantly, to assist all bidders in developing an understanding of the Auction Rules through the running of workshops, seminars and providing the tools necessary for Bidders to simulate Auction conditions.

2.35 Ripplecom, however, requests that ComReg:

¹¹ Interested Parties are reminded that they are obliged to bring any errors to ComReg's attention promptly.

¹² In their responses to Document 15/140

- set out the proposed dates for these seminars as soon as possible and to schedule (at least) two different sessions for these seminars to allow for companies to adequately plan their attendance¹³; and
- avoid holding such seminars during the summer period (i.e. July and August) when smaller companies, in particular, are under significant pressure from a human resource viewpoint with core staff taking annual leave.

2.36 In addition Permanet proposed that the workshop(s) be provided by means of a webcast or recording to facilitate maximum participation.

ComReg's assessment and final position

2.37 The timeline for the first two stages of the award process (i.e. the Application Stage and the Qualification Stage) is set out in Table 9 in the IM. Among other things, this identifies that:

- the presentation to Interested Parties on the Award Process and the Auction Rules will take place on **14 September 2016**; and
- the overall timelines are consistent with the indicative timelines as set out in Document 16/22 and have not been compressed.

2.38 Interested Parties will observe that only one presentation will take place. That said, and in order to facilitate Interested Parties having full access to the material provided at that presentation, in addition to in-person attendance at the presentation:

- during the event, access will be available via a live webinar format¹⁴; and
- following the event, the webinar recording will be placed on ComReg's website.

2.39 For logistics purposes, interested parties that wish to attend the presentation or view the presentation via the live webinar format must e-mail joseph.coughlan@comreg.ie by **16:00 hours on Friday 9 September 2016**, providing the name(s), and e-mail address(es) of those that wish to attend and indicate if attendance will be via webinar or in person.

2.40 As further detailed in Table 9 in the IM:

- all questions on the Award Process and Auction Rules (including those asked at the presentation) will be accepted up until **28 September 2016**;

¹³ Permanet submitted a similar view

¹⁴ This includes access to presentation slides with audio and live Q&A functionality.

- the responses to all questions will be published on ComReg’s website by **12 October 2016**; and
- circulation of materials for accessing and using the EAS to Bidders, including dates for when a mock auctions will be held will be provided in the week beginning **12 December 2016**.

2.5 Assignment Process

Summary of ComReg’s view in Document 16/22

- 2.41 Section 4.3 noted that following the determination of a Provisional Frequency Plan, Winning Bidders would be provided with a period of ten clear working days in which to complete the Negotiation Phase. The acceptance by ComReg of any re-organisation proposed would be subject to, among other things, all Winning Bidders receiving contiguous blocks of spectrum (above and below State Services), in accordance with the amount of spectrum awarded to them in each Region in the Main Stage (or Qualification Stage).
- 2.42 Section 4.3.1 described the process in which specific frequencies could be assigned to the Assignment Bidders awarded frequency-generic Lots (B-Lots).

Views of respondents

- 2.43 Vodafone submits that, in order to facilitate the possibility that Bidders may want their spectrum assigned in each of the 3 400 – 3 600 MHz and the 3 600 – 3 800 MHz parts of the band, the outcome of Negotiation Phase should be permitted to include non-contiguous assignments where it is agreed among Winning Bidders.

ComReg’s assessment and final position

- 2.44 In relation to Vodafone’s submission, DotEcon recommends that:

*“complex rearrangements of frequency assignments such as that proposed by Vodafone are not allowed during the negotiation phase, in order to facilitate a timely award process and avoid any delays to the issuing of licences.”*¹⁵

- 2.45 In support of this recommendation, DotEcon notes that:

- an assessment of *“more complex, non-contiguous, frequency assignments in the Negotiation Phase would require a more in depth consideration by ComReg before approval. In particular, where there are*

¹⁵Document 16/70a - DotEcon page3.

concerns that an alternative assignment could constitute an undesirable Award outcome (e.g. if it might impair ComReg’s ability to conduct effective spectrum management in the future without any clear benefit to the market), ComReg would need to make a careful assessment before determining whether or not to allow the negotiated alternative”;

- *“such assessments can be complex and time consuming and may even require consultation with stakeholders. Such a process may not therefore be feasible within the time currently allocated for the Negotiation Phase, and could result in delays to the conclusion of the Award”;*¹⁶ and
- *“rearrangements of frequency assignments that involve options not currently allowed by the Auction Rules can be requested and dealt with separately, outside of the Award Process.”*

2.46 ComReg agrees with DotEcon’s assessment and considers that:

- an alternative frequency assignment involving non-contiguous spectrum being awarded to one or more Bidders would add complexity to the Assignment Stage and require careful prior assessment by ComReg, as such assignments could:
 - constitute an undesirable spectrum assignment outcome from a spectrum management perspective; and
 - have long term impacts on the market¹⁷;
- any assessment of requests for alternative frequency assignments by ComReg as part of this Award Process could be time-consuming and unduly delay the conclusion of the Award Process and any subsequent issue of Licences; and
- any such requests can instead be assessed by ComReg following the conclusion of the Award¹⁸ in the context of the spectrum trading framework.¹⁹

¹⁶ ComReg notes that the time required for assessment would depend on the extent of the changes proposed and would not be known prior to the Award.

¹⁷ For example, depending on the outcome of the negotiation phase, non-contiguous assignments could result in the inefficient fragmentation of the band restricting or delaying the acquisition of contiguous blocks of sufficient size to allow the introduction of new technologies in the future.

¹⁸ ComReg also notes that a post-auction frequency reassignment is considered separately in Section 3.6.3 (paragraphs 3.187 to 3.191) of the IM where, among other things, ComReg notes that it will consider each request on a case-by-case basis and in light of its statutory functions, objectives and duties, including public consultation on the matter as appropriate.

¹⁹ <http://www.comreg.ie/fileupload/publications/ComReg1276.pdf>

2.47 Therefore, ComReg is of the view that no change to the IM is required in this regard.

2.6 Eligibility Points

Summary of ComReg's view in Document 16/22

2.48 Table 8 provided an overview of the Lots available, showing, among other information, the number of Eligibility Points associated with a Lot in that Lot Category for the purpose of applying the Activity Rules during the Award Process. The Eligibility Points are used to rank different combinations of Lots (or Packages) in order to assess demand and implement the Activity Rules.

Views of respondents

2.49 3IHL submits that it expected that there would be a constant relationship between the Eligibility Points in each geographical area and the expected relative value of those Lots (as defined by the Reserve Price).

2.50 3IHL submits that the number of Eligibility Points proposed seems to follow no particular rule, with some Lots having a higher value, and some lower. ComReg should explain how Eligibility Points for each Lot was determined.

ComReg's assessment and final position

2.51 The Eligibility Points proposed are loosely but not directly related to minimum prices. There is no precise constant relationship between minimum prices and Eligibility Points in this Award.

2.52 ComReg notes DotEcon's assessment that:

- differences in Eligibility Points create impediments to switching and restricting switching between similar Lots seems unnecessary as it is likely to have little or no benefit;
- the proposed Eligibility Points make it possible to switch demand across Regions with similar values without submitting a Relaxed Primary Bid (and any corresponding Chain Bids); and
- a constant relationship between Eligibility Points and minimum prices does not guarantee that Eligibility Points reflect the value differences across Lots for all Bidders as the actual relative values might differ across Bidders and relative to the market value estimates taken as reference when setting minimum prices.

2.53 In that regard, DotEcon recommends:

- assigning the same eligibility points to lots in Regions that have a **broadly** similar minimum price to facilitate switching across Regions and to simplify bidding in the auction; and
- where Eligibility Points differ across Regions, the relativities be set to facilitate switching between combinations of Regions of similar value.

2.54 In considering the views of 3IHL and the assessment above, ComReg agrees with the views of DotEcon and, in particular, that such an approach to assessing Eligibility is appropriate where:

- there are a large number of potentially substitutable Lots;
- the difference in the Reserve Price across Lots is small; and
- aligning Eligibility Points exactly to the minimum price would unreasonably increase complexity.

2.55 Finally, ComReg also notes that the actual difference in the prices of the Lots will be determined by the interaction of Bidders in the Award.

2.56 Therefore, ComReg is of the view that no change to the IM is required in this regard.

2.7 Deposit Call following Assignment Round

Summary of ComReg's view in Document 16/22

2.57 Section 4.3.8 described the Auction Rules in relation to the Deposit Call following the Assignment Round. In summary:

- A Deposit Call would occur at the end of the Assignment Round, and prior to the notification to Assignment Bidders of the outcome of the Assignment Round; and
- ComReg may give notice to one or more Assignment Bidders in the Assignment Round that they need to increase their Deposit to ensure that the difference between the Bidder's Deposit and its Base Price must be at least the amount of its highest Assignment Bid.

Views of respondents

2.58 3IHL would like clarification on the Deposit requirements following the Assignment Round. In particular 3IHL requests clarification on whether the intention is "*to ensure that the standing deposit is as large as the Base Price*

plus the amount of the highest bid". 3IHL submits that the language used in the draft IM does not work in a situation where the standing Deposit is lower than the Base Price.

ComReg's assessment and final position

- 2.59 The text of the draft IM on a Deposit Call following the Assignment Round contrasts with the approach taken in the Main Stage of the Auction, where ComReg may ask for a Deposit top-up that is less than the highest bid submitted by the Bidder.
- 2.60 DotEcon recommends amending the Auction Rules to provide the same flexibility to ComReg in determining the Deposit requirements following the Assignment Round, noting that:
- the level of the Deposit Call (within the bounds of the Auction Rules) should be at the sole discretion of ComReg; and
 - ComReg should still be able to require that each Bidder increase its Deposit to cover the full amount of its Base Price plus its highest Assignment Bid.
- 2.61 For the avoidance of doubt, ComReg notes that if there is a Deposit Call following the Assignment Round, then the amount required would have to cover at most the full amount of a Bidder's Base Price plus its highest Assignment Bid.
- 2.62 ComReg agrees with DotEcon that the IM should include text that provides ComReg with discretion on the level of the Deposit Call made following the Assignment Round, noting that this could require a Bidder to increase its Deposit to cover the full amount of its Base Price plus its highest Assignment Bid. ComReg has amended the IM accordingly (see Section 4.3.8 of the IM).

2.8 Bidder exclusion

Summary of ComReg's view in Document 16/22

- 2.63 Section 3.3.5 (paragraphs 3.78 to 3.85) described sanctions for the infringement of the Auction Rules and included the potential for excluding Bidders from the Award Process, depending on the nature and seriousness of the infringement.
- 2.64 Paragraph 3.81 stated that if a Bidder was excluded from the Award Process, ComReg, at its discretion, may void some or all Bids made up to that point by the Bidder in question, in addition to preventing further Bids by that Bidder. On exclusion of a Bidder, ComReg may also:

- continue with the Auction unchanged, save for the exclusion of that Bidder;
- where appropriate, consider all Bids and calculations made up to that point as valid and binding; and
- reserve the right to make such alterations to the Auction as it considers appropriate at its discretion with a view to maintaining the integrity and efficacy of the Auction. In particular:
 - ComReg would typically not expect to re-run the Primary Bid Rounds already completed if a Bidder were excluded during the Primary Bid Rounds;
 - ComReg would typically not expect to re-run the Main Stage if a Bidder were excluded after the Main Stage of the Auction had been completed and the results made known to all Bidders; and
 - ComReg would typically expect to re-calculate the outcome of the Main Stage excluding the Bids of the excluded Bidder if a Bidder were excluded after the Main Stage of the Auction had been completed but the results of the Main Stage had not yet been made known to all Bidders.

Views of respondents

2.65 3IHL submits that in the event that a Bidder is excluded from the Auction, other Bidders would require transparency regarding this fact, otherwise they would receive misleading information through the Bidding portal regarding aggregate demand and common value.

2.66 Therefore, 3IHL submits that it would be inappropriate to allow the Auction to continue while including the Bids of an excluded Bidder if those Bids could affect the Auction outcome.

ComReg's assessment and final position

2.67 ComReg would note DotEcon observations that:

- all circumstances in which a Bidder might be excluded from the Auction cannot be anticipated; and
- the appropriate course of action following exclusion of a Bidder, including the information provided to other Bidders and how to progress with the Award Process, is best determined on a case-by-case basis, depending on the specific circumstances.

- 2.68 Therefore, DotEcon does not recommend including specific provisions in the IM for providing information to Bidders in such cases or for invalidating bids of excluded Bidders, as this could prevent ComReg from taking the most appropriate action in light of the circumstances of the case in question. Further, limiting ComReg's discretion in this regard could be detrimental to the Award Process. The relevant decisions should be made, in DotEcon's view, as necessary at ComReg's discretion.
- 2.69 ComReg agrees with this assessment and considers that committing to a specific action in the IM prior to the specifics of a particular scenario could be detrimental to the Award Process or disproportionate.
- 2.70 ComReg notes that the information policy of this Award Process ensures that the identities of Bidders and the number of participants is not revealed during the Main Stage, and that only aggregated information is provided to Bidders after each round. Revealing detailed information about an excluded Bidder would significantly undermine these restrictions.
- 2.71 ComReg may remove all the Bids of an excluded Bidder from the determination of winners and prices. Alternatively, ComReg may, depending on the reasons and circumstances for the exclusion of a Bidder, consider some or all of the excluded Bidder's Bids for winner determination and pricing.
- 2.72 This approach avoids incentives for strategic default by Bidders that would arise if Bidder exclusion automatically resulted in cancellation of all prior commitments (i.e. Bids). Even where a Bidder is excluded and prevented from making any further Bids, ComReg will retain the discretion to hold a Bidder to any of the Bids that it had made up to that point.
- 2.73 Paragraph 3.81 of Document 16/22 notes that ComReg would typically not expect to re-run completed Primary Bid Rounds in the event that a Bidder is excluded in the course of the Primary Bid Rounds, though it would retain the right to do so. In relation to the information available to bidders, in certain cases, it would be inappropriate to re-run Primary Bid Rounds following the exclusion of a Bidder because information would already have been released about the demand expressed by the remaining Bidders. Re-running rounds given this information could facilitate tacitly coordinated outcomes, such as remaining Bidders reducing demand relative to the original Bids made.
- 2.74 Therefore, ComReg is of the view that no changes to the IM are required in this regard.

2.9 Award schedule

Summary of ComReg's view in Document 16/22

- 2.75 Section 3.2 described the overall structure of the Award Process and Table 9 set out the indicative timetable.
- 2.76 Section 4.2.1 (paragraph 4.22 and 4.23) set out the information that would be made available to Bidders before the start of the Main Stage, and paragraph 4.24 set out that Primary Bid Rounds are to be scheduled at ComReg's discretion.

Views of respondents

- 2.77 3IHL submits that ComReg's proposed scheduling seems appropriate, however, a longer than normal period should be left between revealing the results of the Application round and the first Bidding round.

ComReg's assessment and final position

- 2.78 3IHL has not provided any indication of what it considers to be "*a normal period*" or what an appropriate length of time would be. DotEcon also observes that the indicative timetable for the award is set out in Table 9 of the IM and that the scheduling of the Primary Bid Rounds is at the discretion of ComReg, as per paragraph 4.24 of the IM.
- 2.79 ComReg agrees with DotEcon's observation and is of the view that the timelines as set out in Table 9 of the draft IM remain appropriate. ComReg also notes the scheduling of the Primary Bid Rounds, if required, can only be made following the deadline for submission of Applications and, among other things, is at the discretion of ComReg, at which point ComReg can provide for a longer period, if appropriate.
- 2.80 Therefore, ComReg is of the view that no changes to the IM are required in this regard.

2.10 Random Selection

Summary of ComReg's view in Document 16/22

- 2.81 Section 4.2.4 set out the rules in relation to the winner and Base Price determination and paragraph 4.148 outlined that if the rules outlined at paragraphs 4.146 and 4.147 did not identify a unique feasible combination of Bids, then the winning assignment would be selected at random from all combinations of Bids that satisfy these rules.

Views of respondents

2.82 3IHL submits that the use of random selection for winner determination is not appropriate and, further, that ComReg should:

- develop an alternative method for determining the winning Bids and prices in this case; and
- notify all affected Bidders if the situation arises where the winner and price determination algorithm does not produce a unique set of winning Bids.

ComReg's assessment & position

2.83 No information has been provided by 3IHL as to why the approach identified in Document 16/22 is inappropriate. In addition, DotEcon notes that:

- random selection is a standard approach in the CCA and other spectrum auction formats;
- it is a last resort option to be applied when all other reasonable and fair approaches to choosing between outcomes have been exhausted;
- it does not believe there is a better method that is fairer to bidders; and
- it is not appropriate to change this for the present award.

2.84 In relation to 3IHL's proposal to inform Bidders that are involved in a tie, DotEcon does not recommend this approach because this could reveal sensitive information about other Bidders' valuations without offering any clear benefits to the award process.

2.85 In considering the above matter, ComReg agrees with DotEcon's assessment and, in particular, that:

- a better method that is fairer to Bidders has not been identified; and
- random selection is a last resort that will only be used when all other approaches to choosing between outcomes have been exhausted.

2.86 Therefore, ComReg is of the view that no specific change to the IM is required in this regard.

Chapter 3

3 Other updates to the IM

3.1 Introduction

3.1 Based on the final Decision as set out in Document 16/57 (D04/16) and other updated information, including the views of Interested Parties and DotEcon's Report 16/70a, this Chapter sets out updates and changes²⁰ to the text of Document 16/22 not already discussed in Chapter 2 of this document. These updates and changes relate to the:

- Licences, Regions and Award Spectrum (Chapter 2 of the IM);
- The Award Process and Auction Rules (Chapter 4 of the IM); and,
- Annexes to the IM.

3.2 For the avoidance of doubt, this Chapter does not discuss changes made to the text of Document 16/22 to correct typographical errors or to improve the clarity of same generally.

3.2 Licences, Regions and Award Spectrum

3.3 The following section discusses changes to the text of chapter 2 of Document 16/22 ("Licences, Regions and Award Spectrum") which relate to:

- Section 2.4.7 (Refund and adjustment of Licence Fees); and
- Section 2.7.5 (Fees for a TUL).

Refund or adjustment of Licence Fees

ComReg's position in Document 16/22

3.4 Section 2.4.7 of Document 16/22 set out ComReg's proposed approach to the refund or adjustment of Licence fees. In particular, paragraph 2.76 stated that:

"Refunds to the Winning Bidder will be paid by ComReg within 5 Working Days of its notification of delayed commencement or, if desired by the Winning Bidder, these refunds can be offset against the following years SUF (or multiple years SUF)."

²⁰ As compared to the text of the Draft IM (Document 16/22)

ComReg's position in the IM

- 3.5 Having considered this proposed approach further, ComReg observes that when it notifies Winning Bidders of the delayed commencement of Lots, or the possibility of delayed commencement of Lots, ComReg will not necessarily know the exact extent of any such delay²¹ and it may not, therefore, be possible for ComReg to refund to, or adjust the Licence fees of, a Winning Bidder within 5 Working Days of this notification.
- 3.6 This difficulty was also present in the MBSA award process where ComReg adopted the following approach in relation to delayed lot(s) in that award:
- no SUF payments were requested by ComReg in respect of delayed lot(s) until such time as ComReg notified the winning bidder of the commencement date of these lots in the licence; and
 - at end of each month following the indicated licence commencement date in the MBSA award process (i.e. 1 February 2013), the refund of the upfront fee for delayed lot(s) in that month was calculated per winning bidder. This refund was then paid to the winning bidder within 5 working days of the end of each month.
- 3.7 The above approach has a number of benefits in the present award, including that:
- the necessity to refund SUFs for delayed Lots is avoided, as such SUFs are not paid by the Winning Bidder until such time that the availability of these Lots is known to ComReg; and
 - the refund of the Upfront Fee to Winning Bidders on a monthly basis ensure that refunds are paid in a more efficient manner. In this regard, ComReg observes that the precise availability of delayed Lots may only become known a number of months following the indicated Licence commencement date of 1 August 2017.
- 3.8 In light of the above, ComReg considers it appropriate to adopt the above approach for this Award Process. These changes are reflected in Section 2.4.7, in particular footnote 45 of the IM.

²¹ For example, the Transition Activities of Existing Licensees may delay the availability of Lots. While ComReg may be able to indicate an expected commencement date for any such delayed Lots, the exact extent of the delay will only be known following the completion of the Existing Licensees' Transition Activities in relation to said Lots.

Fees for a TUL

ComReg's position in Document 16/22

- 3.9 Section 2.7.5 of Document 16/22 set out the annual fee per FWALA Service Area in a TUL as being the annual fee per FWALA Service Area in a TPL plus a 17.29% increase based on a change in the overall CPI index between March 2003 and January 2016.
- 3.10 Section 2.7.5 (footnote 56) also noted that the adjustment value would be updated in ComReg's response to Document 15/140. In its response to Document 15/140 (i.e. Document 16/57), ComReg stated that the adjustment value would be finalised in the IM in line with the latest published CPI data.²²

ComReg's position in the Information Memorandum

- 3.11 In line with Document 16/57, Section 2.7.5 of the IM has been updated based on the change in the overall CPI index²³ between March 2003 and June 2016 using data available on the Central Statistics Office (CSO) website.
- 3.12 Therefore, the annual fee per FWALA Service Area in a TUL is the annual fee per FWALA Service Area in a TPL plus an 18.9% increase, with the final fees for TUL as set out in Table 1 below.

Bandwidth (paired channel)	TPL fee (€)	TUL fee (€)
Up to 7 MHz	1,500	1,783
Over 7 MHz and up to 14 MHz	2,000	2,378
Over 14 MHz and up to 28 MHz	2,800	3,329

Table 1: Annual fee per FWALA Service Area in a TUL

- 3.13 This update is reflected in Table 7 of the IM.

3.3 The Award Process and Auction rules

- 3.14 The following section discusses the changes made to the Auction Rules as contained in Chapter 4 of Document 16/22. These changes relate to:
- Section 4.1.6 (Applicant and Bidder Behaviour); and
 - Section 4.2.4 (Winner and Base Price Determination).

²² See footnote 159 in Document 16/57.

²³ Base year December 2011.

Bidder Behaviour

ComReg's position in Document 16/22

3.15 Section 4.1.6 reminded Bidders that, with the exception of the specific rules for bidding in Alliances, the Auction Rules prohibit Bidders from:

- coordinating bidding decisions with other Bidders; and
- sharing information with other Bidders that could affect their bidding decisions.

ComReg's position in the IM

3.16 ComReg is of the view that the prohibitions mentioned above should be extended to Applicants and the Award Process generally (in contrast to just Bidders and the Auction) because:

- the Application Stage forms part of the Award Process;
- the assignment of spectrum may not require an Auction and the interaction of Bidders (i.e. if a Main Stage and Assignment Stage²⁴ are not required)
- these activities, if undertaken during the Application Stage, could be detrimental to the Award Process.

3.17 This change is reflected in Section 4.1.6 of the IM.

Winner and Base Price Determination

ComReg's position in Document 16/22

3.18 Paragraph 4.142 of Document 16/22 stated that only Valid Bids that have not subsequently been voided by ComReg will be considered when determining the Winning Bidders and Base Prices. It was also noted that, for the avoidance of doubt:

- if a Bidder has been excluded from the Auction, all of the Bids it submitted will be voided and will not be taken into account for the determination of Winners and Base Prices; and
- any other Bids that have been voided by ComReg pursuant to the Auction Rules will not be considered Valid Bids, and will not be included in the Winner and Base Price determination process.

²⁴ An Assignment Stage will not be required where only A-Lots (frequency-specific) are won by Winning Bidders.

ComReg's position in the IM

3.19 ComReg's approach is that only Valid Bids that have not subsequently been voided by ComReg will be considered when determining the Winning Bidders and Base Prices. For the reasons explained in Section 2.8 of this document, ComReg considers it appropriate to retain discretion to include certain Bids depending on the circumstances and timing of a Bid. Further, the approach to Sanctions set out in Section 3.3.5 of the IM allows for bids of an excluded Bidder to remain valid at ComReg's discretion.

3.20 In order to ensure a consistent approach across the IM, the first bullet above (stipulating that all bids from an excluded Bidder will be voided) has been deleted in the IM.

3.21 This change is reflected in paragraph 4.142 of the IM.

3.4 Annexes

3.22 Eight annexes were included in Document 16/22, namely:

- Glossary (Annex 1);
- Draft Regulations (Annex 2);
- Application Form (Annex 3);
- Alliance Notification Form (Annex 4);
- Worked Example of Activity Rules for the Primary Bid Rounds and Caps on Supplementary Bids (Annex 5);
- Example of Winner and Price Determination (Annex 6);
- Implications of Final Price Cap (Annex 7); and
- Relationships, resolution of Bidder connections, exemptions and changes (Annex 8).

3.23 No material changes have been made to these Annexes as they appear in the IM, except for:

- Annex 7.

3.24 ComReg would also highlight that two new Annexes have been included in the IM, being:

- Annex 9 (Methodology for the generation of Assignment Options); and
- Annex 10 (Determination of Winning Bids and Base Prices);

3.4.1 Annex 7

ComReg's position in Document 16/22

3.25 This Annex considered the implications of the final price cap for bidding strategies in the supplementary bids round.

ComReg's position in the IM

3.26 Annex 7, in Document 16/22, did not account for the unsold lots being valued at reserve for the calculation of winners and base prices. This has been corrected in the IM.

3.27 Therefore, para A2.9 has been updated to clarify that provisionally unassigned lots are valued at the reserve price when assessing outcomes for the purposes of determining winners.

3.4.2 Annex 9

ComReg's position in Document 16/22

3.28 Section 4.3.1 outlined that ComReg would establish ways in which specific frequencies can be assigned to Assignment Bidders awarded frequency–generic Lots (i.e. B-Lots) where:

- for each Region in which an Assignment Bidder won B-Lots in the Main Stage, the Assignment Bidder is awarded a contiguous block of spectrum within the Region, in accordance with the number of B-Lots it won in that Region;
- any option for assigning frequencies to a particular Assignment Bidder is consistent with all other Assignment Bidders each receiving contiguous spectrum in every Region;
- any Assignment Bidder that has been awarded exactly the same number of B-Lots in every Region is assigned the same frequencies in each Region;
- subject to the previous requirements being satisfied, for Assignment Bidders that have been awarded B-Lots in multiple Regions, the options presented will be those where they are assigned the same frequencies in each Region to the maximum extent; and
- subject to the previous requirements being satisfied, the extent to which unassigned spectrum rights of use can be combined into the fewest number of contiguous blocks is maximised.

ComReg's position in the IM

- 3.29 ComReg notes that no responses were received in relation to these requirements and the requirements will remain as stated in Document 16/22.
- 3.30 Notwithstanding, and in order to provide Interested Parties with a clear understanding on how the frequency assignments will be generated in line with these requirements, Annex 9 of the IM now provides a detailed description and illustration of this process. Among other things, this procedure aims to present to Assignment Bidders a number of alternative Assignment Options.
- 3.31 In addition, ComReg has clarified that this procedure eliminates Assignment Options with poor alignment of frequencies assigned to each Bidder across different Regions and, for the remaining options, uses unassigned Lots to “pad” the frequency boundaries between Bidders in specific Regions and improve frequency alignment across Regions.
- 3.32 This change is reflected in footnote 115 and Annex 9 of the IM.

3.4.3 Annex 10 of IM

ComReg's position in Document 16/22

- 3.33 Annex 6 of Document 16/22 (Example of Winner and Price Determination) provided an explanation of the Winner and Base Price determination process in order to aid a Bidder's understanding of same.

ComReg's position in the IM

- 3.34 Annex 6 of Document 16/22 has been retained in the IM.
- 3.35 A new Annex 10 has been included to provide a formal mathematical description of the procedure for determining Winning Bidders, Winning Bids and Base Prices. This formal description may be of use to Applicants and Bidders.
- 3.36 In addition it facilitates the conduct of independent auction verification tests on the operation of the winner and price determination algorithms that will be implemented for the Award Process.
- 3.37 These tests, to be commissioned by ComReg, ensure that the auction software calculates Winning Bidders, Winning Bids and Base Prices in accordance with the Auction Rules published in the IM.

Chapter 4

4 Next steps

- 4.1 Table 9 of Chapter 3 of the IM sets out the timetable for the next steps of the Award Process.
- 4.2 On the **14 September 2016**, ComReg will provide a presentation on the Award Process and of the Auction Rules. This presentation will seek to provide as much clarity and explanation around the Award Process and the Auction Rules as possible, taking into account the fact that some Interested Parties may not have previously participated in any similar process. Further details will be published on ComReg's website regarding this presentation and ComReg would welcome feedback from Interested Parties in advance of this presentation as to what would be useful to address. ComReg will also facilitate the submission of questions regarding the Award Process and Auction Rules and will respond publicly to these questions on an anonymous basis.²⁵
- 4.3 For logistics purposes, interested parties that wish to attend the presentation or view the presentation via the live webinar format must e-mail joseph.coughlan@comreg.ie by **16:00 hours on Friday 9 September 2016**, providing the name(s), and e-mail address(es) of those that wish to attend and indicate if attendance will be via webinar or in person.
- 4.4 ComReg will process questions received within the stipulated period (as set out in Table 9 of the IM). Questions and corresponding answers will be published concurrently on ComReg's website. ComReg will not reply directly to these questions.
- 4.5 In the interests of expediency, ComReg requires that any questions containing confidential material²⁶ be accompanied by a redacted, non-confidential version of the question. Should a question that is considered confidential by its submitter not be accompanied by a redacted, non-confidential version, ComReg will not accept the question as being validly submitted, nor will ComReg publish the question on its website or address the matters raised therein.
- 4.6 In the event that ComReg receives correspondence on matters relating to this document, the IM and the Award Process generally, ComReg hereby gives notice that it will publish all material correspondence received in this regard

²⁵ See Section 3.3.1 of the IM in this regard.

²⁶ Note, unless a question or part thereof is explicitly denoted confidential, ComReg will assume that the querist considers the question to be non-confidential. In this regard, ComReg would then have the authority to publish the question in whole or in part as it deems appropriate, in line with ComReg's guidelines on the treatment of confidential information (Document 05/24).

subject to the provisions of ComReg's guidelines on the treatment of confidential information.

Annex 1: Correspondence received on behalf of Permanet, Ripplecom, LightNet and Net1, and ComReg's response to same



Mr. Jeremy Godfrey, (Chairman),
Mr. Joseph Coughlan,
Commission for Communications Regulation,
Abbey Court, Irish Life Centre,
Abbey Street,
Dublin 1.

02/08/2016

Further input on Proposed 3.6 GHz band award, on behalf of
permaNET, Ripplecom, Net1, Lightnet.

Dear Commissioner and Mr. Coughlan,

With reference to the Consultation on Proposed 3.6 GHz band award, in the Information notice (ComReg 15/76 dated 10 July 2015) we note that ComReg confirm that "to the extent that interested parties have views on how Comreg's spectrum award proposals may, in their view, better align with the NBP then ComReg remains open to consideration of such views in the context of ComReg's own statutory remit.

As companies who have been providing broadband services to rural communities for many years, we wish to express deep concerns regarding the current apparently uncoordinated processes being pursued by Comreg, in relation to the 3.6 GHz Spectrum Award allocation and DCENR in relation to the National Broadband Plan (NBP). These processes run the very real risk of disrupting broadband availability to tens of thousands of rural businesses, schools and homes.

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Directors: R.O'Leary, S. Buckley



Our companies acknowledge that, intervention is required in rural areas. As demand is increasing for on-line services, upgraded technology platforms are required to provide enhanced customer experience. Our concern is that thus far, there has been no planning or discussion on how to transition from existing services, to these new services over the next 5 years from 2017 to 2022. The lack of any plan will result in poorer or non-existent services for rural communities and businesses during these years and this assumes that by 2022 all communities will have access to the proposed new NBP FTTH services.

Currently, Rural Wireless Internet Service Providers (RWISPs) provide essential broadband services to these communities, including in excess of 100,000 homes, 23,000 businesses and 1,300 schools. This wireless solution is provided via licensed exempt or Comreg licensed spectrum. The most widely used licensed spectrum solutions operate on the 3.6Ghz band this band being very suitable for rural, wide area deployment. The license exempt bands which are widely used in Ireland are now largely congested. The current 3.6Ghz spectrum allocation process is doing little to ensure the continuance of a rural wireless broadband industry or assist our companies to provide much needed and improved services during this critical 5 year transition period. We submit that this critical situation has not been adequately weighted by Comreg in arriving at the decisions regarding the optimal use of 3.6Ghz spectrum, especially during the critical 2017 to 2022 time period.

Currently, Comreg has an enormous opportunity to review how to allocate both 190Mhz of 2.6Ghz spectrum (a mainstream mobile band) plus 350Mhz of 3.6Ghz spectrum. Comreg should take this opportunity to optimize the availability of spectrum to both the mobile industry and the rural FWA industry. We are supportive of the views expressed by Imagine and Vodafone in their submissions (re)published by Comreg on 1-July-2016. In particular we would urge Comreg, in advance of the next steps in the 3.6Ghz allocation process, to announce a clear timescale for the 2.6Ghz auction and to clarify how holdings in 3.6Ghz may be taken into account in a future 2.6Ghz auction.

Rather than forcing all interested companies to compete for a single band (3.6Ghz) as is currently proposed, with the clear risk of forcing FWA operators out of the market, it could plan to make available the 2.6Ghz spectrum within a reasonably short timeframe to satisfy spectrum demand from mobile operators and simultaneously allocate a portion of 3.6Ghz spectrum, in rural areas, to RWISPs. This would provide significant additional broadband capacity in order to bridge the 5 year transition during the rollout of the NBP.

In deciding against the latter option, Comreg has cited an EU decision regarding spectrum usage. We submit however that Ireland faces a unique problem in the coming 5 years. When taking these circumstances into account we are confident that an arrangement could be agreed, such that Ireland



continues to operate in a consistent and balanced manner with both EU spectrum decisions and the Digital Agenda for Europe guidelines.

We do not consider this letter to be confidential.

sincerely,

A handwritten signature in blue ink, appearing to read 'Ray O'Leary', is positioned above the printed name.

Ray O'Leary

Managing Director,

permaNET Ltd.

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Directors: R.O'Leary, S. Buckley



23 August 2016

Mr Ray O'Leary
Managing Director
permaNET Ltd
Unit 2, Kinvara House
Dublin Hill
Cork

Dear Mr. O'Leary,

Further input on 3.6 GHz Award by permaNET, Ripplecom, Net1 and Lightnet

I refer to your letter of 2 August 2016, submitted on behalf of the above organisations, to Commissioner Jeremy Godfrey and Mr. Joseph Coughlan in relation to the Commission for Communications Regulation's ("ComReg") 3.6 GHz award process ("3.6 GHz Band Award").

By way of background and as a procedural matter, I note that your letter refers to ComReg's July 2015 invitation in Document 15/76 for any views which interested parties may have on its then proposed 3.6 GHz Band Award process. As you will be aware, ComReg's consultation process on its substantive 3.6 GHz Band Award proposals is now closed and ComReg issued its final decisions on this matter on 11 July 2016 by way of the publication of its *Response to Consultation & Decision on Proposed 3.6 GHz Band Spectrum Award* (Document 16/57 and, in particular, Decision 04/16 in Chapter 8 of same).

In that context and in relation to the various substantive matters raised in your letter, ComReg observes that these matters have been fully considered and addressed in its decision-making process on the 3.6 GHz Award and related matters. In particular:

- in relation to your views on transitional matters and the suggested potential effects on existing services, ComReg would draw your attention to the comprehensive transition rules which have been a feature throughout the course of the public consultation process on the 3.6 GHz Award and, in particular, ComReg's decision to grant both 3.6 GHz Band Transition Protected Licences and 3.6 GHz Band Transition Unprotected Licences¹ aimed at facilitating continuity of existing services during the period in question;
- in relation to your request that ComReg, in advance of the 3.6 GHz Band Award, announce a clear timescale for its proposed 2.6 GHz band award process, ComReg would draw your attention to ComReg's *Radio Spectrum Management Strategy 2016 - 2018*² and its action plan for the current year³;

¹ See, in particular, Chapter 7 of Document 15/70, Chapter 7 Document 15/140, Chapter 2 of Document 16/22, and Chapters 7 and 8 of Document 16/57.

² Chapter 6 of Document ComReg 16/50.

³ <http://www.comreg.ie/media/2016/03/Annual-Action-Plan.pdf> -



- in relation to your request for clarity on how holdings in the 3.6 GHz Band may be taken into account in any future award of rights of use in the 2.6 GHz band, ComReg would draw your attention to Section 5.5 of Document 16/57; and
- in relation to your suggestion that ComReg “...allocate a portion of the 3.6 GHz spectrum, in rural areas, to RWISPs” and your references to the relevant European Commission (“EC”) decisions on the 3.6 GHz band⁴ and the EU Digital Agenda for Europe⁵ in this regard, ComReg would draw your particular attention to Chapters 2 and 3 of Document 15/140 and Chapters 3, 6 and 8 of Document 16/57.

ComReg is, therefore, satisfied that it has already adequately addressed the concerns raised in your letter of 2 August 2016. In addition, ComReg would highlight that the award process has been designed with a number of mechanisms aimed at lowering the barriers to smaller operators, such as existing licensees, participating in the award process and, in that light, would encourage such operators to consider doing so.

Finally, I note that you do not consider your letter to be confidential. In that regard, ComReg will publish your letter and its response to same in due course.

Yours sincerely,

Ivan Kiely

Senior Manager Spectrum Operations

⁴ EC Decisions 2008/411/EC and 2014/276/EU.

⁵ <http://ec.europa.eu/digital-agenda/digital-agenda-europe> .