



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

400 MHz Band Spectrum Award Information Memorandum and Draft Regulations

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Content

Section	Page
1 Introduction.....	5
1.1 Legal Framework and Agreement.....	6
1.2 The 400 MHz Band.....	7
1.3 Structure of Information Memorandum.....	7
2 Licences and Award Spectrum	9
2.1 Introduction	9
2.2 400 MHz Band Licence – Licence Conditions.....	9
3 The Award Process	19
3.1 Lots Available.....	19
3.2 Process Overview and Timeline.....	20
3.3 Application Stage	25
3.4 Qualification Stage	44
3.5 Assessment Stage	47
3.6 Assignment Stage – Part B Award Only.....	59
3.7 Notification and Grant Stage	61
3.8 End of the Award Process.....	63
4 Legal Terms and Conditions	64
4.1 Important Notice.....	64
4.2 Additional Conditions	67

Annex

Section	Page
Annex: 1 Glossary	71
Annex: 2 Draft Regulations	83
Annex: 3 Application Form	101
Annex: 4 Auction Worked Example.....	122
Annex: 5 Assessment of Bids at the End of Rounds.....	131

Table of Tables

Section	Page
Table 1. Indicative timeline for the Award	24
Table 2: Applicant and total amount of Deposit	111
Table 3: Bid Form for Part A.....	111
Table 4: Bid Form for Part B Award (10 Lots available).....	112
Table 5: Bid Form for Part B Award (10 Lots available).....	112
Table 6: Bid Form for Part B Award (10 Lots available).....	113
Table 7: Bid Form for Part B Award (40 Lots available).....	113
Table 8. Electricity sector utility network details.....	117
Table 9. Gas sector utility network details.....	118
Table 10. Water sector utility network details.....	119
Table 11. End of Round 1 Bids	123
Table 12. End of Round 2 Bids	125
Table 13. End of Round 3 Bids	126
Table 14: Feasible Combinations of Bids at the end of Round 3.....	127
Table 15. End of Round 4 Bids	128
Table 16: Feasible Combinations of Bids after Round 4.....	129

Chapter 1

1 Introduction

- 1.1 This Information Memorandum (“IM”) sets out the rules and procedures ComReg intends to employ in carrying out the Award Process. This IM is a reflection of the policy decisions made by ComReg as outlined in Document 19/69¹.
- 1.2 In Document 19/69² ComReg set out its Response to Consultation and Decision on its spectrum release proposals concerning the 410 – 414 MHz / 420 – 424 MHz frequency band.
- 1.3 In Document 19/56³, ComReg consulted, a draft IM setting out the proposed processes and procedures for the proposed 400 MHz Band spectrum award which it had developed following consultation as detailed in Documents 17/67⁴, 18/92⁵ and 19/23⁶. ComReg also published a draft set of Regulations, to be made under Section 6 of the Act of 1926 subject to the consent of the Minister for Communications, Climate Action and Environment.
- 1.4 Following consideration of all submissions received in response to Documents 17/67, 18/92, 19/23 and 19/56 and other relevant information before it, and having regard to its obligations under the Authorisation Regulations, ComReg now publishes this final IM which details the processes and procedures ComReg will employ in implementing its substantive proposals as detailed in its Decision (Chapter 4 of Document 19/69).

¹ ComReg Document 19/69 – Response to Consultation and Decision on the 400 MHz Band Spectrum Award – Published 28 June 2019.

² ComReg Document 19/23 – Response to Consultation and Draft Decision on the Release of the 400 MHz sub-band – Published 15 March 2019.

³ ComReg Document 19/56 – Draft Information Memorandum and Draft Regulations – Published 12 June 2019.

⁴ ComReg Document 17/67 – Consultation on the Proposed Release of the 410 – 415.5 MHz / 420 – 425.5 MHz Sub-band.

⁵ ComReg Document 18/92 – Further Consultation on the Release of the 410 – 415.5 MHz / 420 – 425.5 MHz Sub-band – Published 24 October 2018.

⁶ ComReg Document 19/23 – Response to Consultation and Draft Decision on the Release of the 400 MHz sub-band – Published 15 March 2019.

- 1.5 ComReg has sought to provide as much clarity as possible in this IM around the processes, procedures and rules taking into account that some Interested Parties may not have participated in any previous, or similar process. Following publication of the final IM, ComReg will facilitate the submission of questions regarding the Award Process and Award Rules and will respond publicly to these questions on an anonymous basis.
- 1.6 Interested Parties should also note that though this IM is similar in layout to earlier information memoranda adopted by ComReg and used in past radio spectrum awards, this IM is unique and is not identical to any earlier memoranda. This IM has been drafted by reference to the particular facts at hand, including the design and format of the award for granting new rights of use in the 400 MHz Band. All prospective Applicants should therefore familiarise themselves with this IM in its entirety and, in particular, should not rely upon knowledge of earlier information memoranda.

1.1 Legal Framework and Agreement

- 1.7 In preparing this IM, ComReg has been guided by its statutory functions, objectives and duties relevant to its management of the radio frequency spectrum (see Annex 1 of Document 19/69), its most recent Spectrum Strategy Statement (ComReg Document 18/118⁷), and its Regulatory Impact Assessment (“RIA”) in relation to this matter (see Chapter 3 of Document 19/69).
- 1.8 The new rights of use for radio frequencies in the 400 MHz Band will be assigned through licences granted by ComReg under Section 5 of the Act of 1926, as amended. In order to grant such licences, ComReg must make regulations under Section 6 of the Act of 1926. Such regulations will prescribe, amongst other things, the form and duration of the licences, the terms on which they are granted, the circumstances and manner in which they may be renewed, suspended or revoked, the fees to be paid on the granting or renewal of the licences, and the terms and conditions to be observed by holders of such licences.

⁷ ComReg Document 18/118 – Radio Spectrum Management Strategy 2019 to 2021 – published 20 December 2018.

- 1.9 The making of such regulations is subject to the consent of the Minister for Communications, Climate Action and Environment⁸. Annex 2 of this IM contains the new SI, titled the Wireless Telegraphy (400 MHz Band Licences) Regulations 2019 (“Regulations”).
- 1.10 Chapters 2, 3, and 4 of this IM set out important provisions relating to the Award Process to which Interested Parties must agree if they wish to participate in the Award Process and which are binding.
- 1.11 For the avoidance of doubt, references throughout this IM to ComReg exercising its discretion mean ComReg acting reasonably and in accordance with its statutory functions, objectives and duties.
- 1.12 Capitalised terms in this IM, unless otherwise defined, have the meanings assigned to them in Annex 1.

1.2 The 400 MHz Band

- 1.13 The 400 MHz Band, for the purposes of this Award, constitutes the part of the radio frequency spectrum consisting of the 410 – 414 MHz paired with 420 – 424 MHz. This spectrum is being made available in two parts:
- part A consists of 2 × 3 MHz from 410 – 413 MHz / 420 – 423 MHz for the provision of wireless connectivity for Smart Grid services; and
 - part B consists of 10 Lots of 2 × 100 kHz from 413 – 414 MHz / 423 – 424 MHz to be released on a service and technology neutral basis.

1.3 Structure of Information Memorandum

- 1.14 The remainder of this IM is structured as follows:
- **Chapter 2** details the Award Spectrum, the Lots included in the Award Process, and the terms and conditions of 400 MHz Band Licences that may be awarded through this process;
 - **Chapter 3** details the various stages of the Award Process, the timelines for the Award Process, and the Award Rules;

⁸ Section 37 of the Communications Regulation Act 2002 – “Regulations shall not be made by the Commission under section 6 of the Wireless Telegraphy Act, 1926, other than with the consent of the Minister.”

- **Chapter 4** provides additional details on the legal terms and conditions that are applicable to this Award Process; and
- **Annexes:**
 - Annex 1.** Glossary;
 - Annex 2.** Regulations;
 - Annex 3.** Application Form for participation in the Award;
 - Annex 4.** Worked Auction Example; and
 - Annex 5.** Assessment of Bids at the end of Rounds.

Chapter 2

2 Licences and Award Spectrum

2.1 Introduction

- 2.1 In this Award Process, ComReg will assign new rights of use for 2 × 4 MHz of radio frequency spectrum in the range 410 – 414 MHz paired with 420 – 424 MHz. All further references to the “400 MHz Band” in this IM are, unless otherwise indicated or the context so implies, references to the Award Spectrum.
- 2.2 The Award Spectrum consists of two parts:
- A Part A Lot which consists of one 2 × 3 MHz Lot (410 – 413 MHz / 420 – 423 MHz) for the provision of wireless connectivity for Smart Grid; and
 - Part B Spectrum which consists of ten 2 × 100 kHz separate Part B Lots (413 – 414 MHz / 423 – 424 MHz).
- 2.3 If no Applications are received for the Part A Lot the number of Lots available in the Part B Award will increase to 40 Lots of 2 × 100 kHz (410 – 414 MHz / 420 – 424 MHz).

2.2 400 MHz Band Licence – Licence Conditions

- 2.4 ComReg will assign the Award Spectrum through Licences granted to Winning Bidders under Section 5 of the Act of 1926. Annex 2 sets out the Regulations to be made by ComReg under Section 6 of the Act of 1926, subject to Ministerial consent required under Section 37 of the 2002 Act, as amended, and which will govern all Licences and will, amongst other things, specify licence duration, conditions, and fees.
- 2.5 This section describes the conditions that will attach to such Licences which are set out in the Regulations and/or the indicative Licences themselves.

2.2.1 Entitlement to apply for a 400 MHz Band Licence

- 2.6 In accordance with the rules for the Notification and Grant Stage (See Section 3.7 of this IM), each Winning Bidder will be entitled to apply for a Licence. Only a Network Utility Operator as defined in Annex 1 is eligible to apply to participate in the Part A Award.

2.2.2 Scope

- 2.7 A Licence will permit a Licensee to keep, possess, install, maintain, work and use Apparatus in the portion of the 400 MHz Band assigned thereunder and for the purpose of operating Apparatus. All Apparatus must comply with the conditions of the applicable Licence as set out in the Regulations.

2.2.3 Licence Conditions

- 2.8 This section describes the conditions that shall attach to the Licences. This section also specifies certain things that Licensees will not be permitted to do.

Duration

- 2.9 The Licences will be of fifteen years duration. All Licences will commence on such Commencement Date as ComReg may specify having regard to, amongst other things, the date of conclusion of this Award Process and all Licences will expire on the fifteenth anniversary of the Commencement Date. All associated rights of use for radio frequencies in the 400 MHz Band, as assigned under the Licences, will commence and expire on the same dates as the Licences.
- 2.10 There shall be no express or implied right of renewal of, extension to, or any other form of prolongation of a Licence, or of any rights of use for radio frequencies assigned thereunder, beyond the expiry date of same.

Permitted use

- 2.11 400 MHz Band Licences for the Part A Lot will permit Licensees to keep, possess, install, maintain, work and use Apparatus to provide wireless connectivity for Smart Grid only.
- 2.12 400 MHz Band Licences for Part B Lots will permit Licensees to keep, possess, install, maintain, work and use Apparatus to provide Radiocommunication Services only.

Duplex Arrangements

- 2.13 Licences will permit Licensees to keep, possess, install, maintain, work and use Apparatus using “frequency division duplexing” (“FDD”)⁹ only.

⁹ “FDD” describes a full-duplex communications link that uses two different radio frequencies for transmitter and receiver operation. The transmit direction and receive direction frequencies are separated by a defined frequency offset.

- 2.14 For avoidance of doubt, Licences will not permit Licensees to keep, possess, install, maintain, work or use Apparatus using “time division duplexing” (“TDD”)¹⁰.

Guard bands

- 2.15 There will be no Licence condition(s) that create or mandate guard bands between adjacent Licensees. Bidders should therefore identify any guard band requirements that their choice of technology may require and should bid for a sufficient number of Part B Lots to meet those requirements.

Non-Ionising Radiation

- 2.16 Licensees must ensure they comply with any non-ionising radiation exposure limits adopted and published by the International Commission for Non-Ionising Radiation Protection (ICNIRP) or its successors from time to time, any radiation emission standards of the European Committee for Electrotechnical Standards and any other non-ionising radiation exposure limits specified by law;

- (i) emissions from apparatus operated by the Licensee ensure relevant non-ionising exposure limits specified by the guidelines published by ICNIRP are not exceeded; and
- (ii) Apparatus operated by the Licensee is not installed or operated at a location in such a manner as to cause the aggregate of non-ionising radiation emissions to exceed the limits specified by the guidelines published by ICNIRP.

Equivalent Isotropic Radiated Power

- 2.17 A Licensee, in keeping, possessing, installing, maintaining, working and/or using all Apparatus shall be required to use:
- the minimum Equivalent Isotropic Radiated Power (“EIRP”)¹¹ necessary to obtain the level of service and availability, and no more than 50 W EIRP; and
 - a maximum mean in block power of 31 dBm for user equipment.

¹⁰ “TDD” is a method for emulating full-duplex communication over a half-duplex communication link. The transmitter and receiver both use the same frequency but transmit and receive traffic is switched in time.

¹¹ The product of the power supplied to the antenna and the antenna gain G_i in a given direction relative to an isotropic antenna (absolute or isotropic gain) (ITU Radio Regulations, No. 1.161). The idealized reference antenna, when fed with a power of 1 kW, is considered to provide an EIRP of 1 kW in all directions and to produce a field strength of 173 mV/m at 1 km distance.

Licensees must comply with the block edge mask as set out in the Regulations in Annex 2.

Roll-out and Associated Compliance Reporting Conditions

Part A and/or Part B used for Smart Grid

- 2.18 It is a condition of a 400 MHz Band Licence used for the provision of wireless connectivity for Smart Grid services that the Licensee shall use its 400 MHz Band Licence to provide communications to at least 50% of its utility network within 7 years of the Commencement Date of the Licence. For the avoidance of doubt, this roll-out condition shall not be based on, or include, any roll-out of any form of smart meter.
- 2.19 A 400 MHz Band Licensee using the 400 MHz Band for the provision of wireless connectivity for Smart Grid services shall be required to submit to ComReg an annual compliance report on the locations and type of wireless telegraphy equipment on each anniversary of the licence demonstrating progress made with its roll-out obligation. On the seventh anniversary of the licence, using the annual compliance report, ComReg will assess as to whether or not the Licensee has met the relevant rollout obligation.
- 2.20 If a Network Utility Operator that applied for the Part A Lot also acquires Part B Spectrum and uses it for the provision of wireless connectivity for Smart Grid services, then the roll-out conditions applicable to the Part A Lot will apply to the total quantum of 400 MHz Band spectrum rights of use held by the Licensee. This is irrespective of whether or not the Licensee was successful in acquiring the Part A Lot.
- 2.21 ComReg reserves the right to publish details of these reports on a non-confidential basis.

Part B not used for Smart Grid

- 2.22 It is a condition of a 400 MHz Band Licence not used for the provision of wireless connectivity for Smart Grid services that the Licensee shall achieve and maintain no less than 10 Base Stations in each of the areas listed below within 3 years of the Commencement Date of the Licence:
- Area 1 – Carlow, Dublin, Kildare, Kilkenny, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wexford, and Wicklow;
 - Area 2 – Clare, Cork, Kerry, Limerick, Tipperary, and Waterford; and
 - Area 3 – Cavan, Donegal, Galway, Leitrim, Mayo, Monaghan, Roscommon, and Sligo.

- 2.23 Where a Licensee has a Base Station in one area and this Base Station is worked and used to provide services to another area, the Base Station will be counted as being worked and used in the area it serves (and not the area in which it is located).
- 2.24 Where a Licensee has a Base Station in one area and this Base Station is worked and used to provide services to more than one area (that is, the area in which it is located in and also neighbouring areas), the Base Station will only be counted as a single Base Station for the purposes of meeting the Base Station obligation and the Licensee may choose the area in which such a Base Station is to be counted for this purpose.
- 2.25 A 400 MHz Band Licensee not using the 400 MHz Band for the provision of wireless connectivity for Smart Grid services shall be required to submit to ComReg an annual compliance report on the locations of each of its Base Stations on each anniversary of the licence demonstrating progress made with its roll-out obligation. On the third anniversary of the licence, using the annual compliance report, ComReg will assess as to whether or not the Licensee has met the relevant roll-out obligation.
- 2.26 ComReg reserves the right to publish details of these reports on a non-confidential basis.

Spectrum hoarding

- 2.27 ComReg will not attach any conditions to Licences for the express purpose of preventing spectrum hoarding (see Regulation 17(10) of the Framework Regulations¹²). However, ComReg reserves the right to attach any such condition(s) in the future, as may be considered necessary and proportionate (see paragraph 2.47). Licensees that become subject to any such conditions will be required to comply with same.

Payment of fees

- 2.28 It will be a condition of any Licence that the Licensee shall make payment of all applicable fees as they fall due.

Radio Equipment Regulations

- 2.29 All radio equipment placed on the Irish market or put into service must comply with the Radio Equipment Directive (2014/53/EU) as transposed into Irish law

¹² S.I. No. 333 of 2011, the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011.

as the European Union (Radio Equipment) Regulations 2017¹³. It is a function of ComReg to ensure compliance with the Radio Equipment Directive. This includes defining the regulated interface requirements for radio services in Ireland and these interfaces are set out in Document 06/47R¹⁴ as amended.

2.30 It shall be a condition that Licensees shall ensure that:

- Apparatus complies with relevant radio interface specifications set out in Document 06/47R, as may be amended from time to time; and
- Apparatus, or any part thereof, complies with the Radio Equipment Directive with Licensees having a particular duty to ensure that -
 - any electromagnetic disturbance generated by any Apparatus does not exceed the level above which it may cause interference with any other lawful radio and telecommunications equipment or apparatus for wireless telegraphy; and
 - any radio and telecommunications equipment or other apparatus for wireless telegraphy supplied by a Licensee, or any installations constructed by a Licensee, shall be appropriately immune to electromagnetic interference.

2.2.4 Fees

2.31 Licences, together with all rights of use for radio frequencies in the 400 MHz Band assigned thereunder, will be granted on foot of the Award Process described in Chapter 3 of this document. The total fees that will apply to each Licence shall consist of:

- (i). a once-off, upfront **Spectrum Access Fee (“SAF”)** paid by a Winning Bidder at the conclusion of the Award Process and prior to the initial granting of its Licence; and
- (ii). an annual **Spectrum Usage Fee (“SUF”)** first paid by a Winning Bidder at the conclusion of the Award Process and prior to the initial granting of its Licence and thereafter paid on or before each anniversary of the Commencement Date of the Licence.

2.32 Licences granted out of this Award Process are not subject to Value Added Tax (“VAT”). However, if the VAT rules should change over the duration of the Licences, so as to require the application of VAT to such fees, then VAT would be applied as appropriate.

¹³ S.I. No. 248/2017, giving effect to Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 and to Regulation (EC) No 765/2008 of 9 July 2008.

¹⁴ Interface Requirements for Radio Services in Ireland – ComReg Document 06/47R. <https://www.comreg.ie/publication-download/interface-requirements-for-radio-services-in-ireland>

Spectrum Access Fee

- 2.33 The SAF payable by a Winning Bidder for a 400 MHz Band Licence in the Notification and Grant Stage is a fee that comprises the Price associated with the Winning Bid for that Winning Bidder, payable for winning Lots in the Assessment Stage of the Award Process.
- 2.34 The Price is determined as follows:
- where an Assessment Stage is not required, the Price for a 400 MHz Band Licence is the sum of the Reserve Prices for all Lots to be included in a 400 MHz Band Licence.
 - where an Assessment Stage is required, the Price for a 400 MHz Band Licence is determined by one or two Auction process(es) as detailed below. The Price for a Licence will be no less than the sum of the Reserve Prices for all Lots to be included in the Licence.
- 2.35 The Reserve Price is set out as follows:
- The Reserve Price for the Part A Lot is €240,000 (two hundred and forty thousand Euro).
 - The Reserve Price for each Part B Lot is €8,000 (eight thousand Euro).

Spectrum Usage Fees

- 2.36 The SUF is an index-linked fee to be paid at defined intervals over the duration of the Licence. The first SUF will be payable at the conclusion of the Award Process and prior to the initial granting of the Licence. Each subsequent SUF will be payable annually thereafter, prior to the anniversary of the Commencement Date of the Licence. All SUFs, following the first years fee (paid at the conclusion of the Award) will be index-linked to the Consumer Price Index¹⁵ ("CPI") published by the Central Statistics Office¹⁶ of Ireland (or its successor). As the CPI may vary over time, a SUF may increase or decrease over the duration of a Licence ("CPI Adjustment"). For the avoidance of doubt, a total of 15 SUFs will be payable for each Licence that runs its full 15 year duration, and CPI will apply to the last 14 SUFs.
- 2.37 The SUFs for a Licence shall be the sum of the SUFs for each Lot included in that Licence. For each Lot included in a Licence, the SUF for a one (1) year Licence period is:

¹⁵ If the CPI data ceases to be published or if the method of its calculation changes fundamentally, ComReg reserves the right to select another appropriate index and to amend the method of calculating indexing accordingly.

¹⁶ See www.cso.ie.

- €39,000 plus the CPI Adjustment for a 400 MHz Band Licence for the Part A Lot; and
- €1,300 per Lot plus the CPI Adjustment for a 400 MHz Band Licence for Part B Lots.

2.38 The CPI Adjustment for a SUF shall be calculated using the month of the Commencement Date as the common base date for the CPI (i.e. CPI = 100). ComReg will also use the most current CPI data available to it at that time. For example, for a SUF payable in December, ComReg envisages that the most up to date CPI data available is likely to be from October of that year.

Arrangements for Paying Fees

2.39 All fees for 400 MHz Band Licences in this Award Process shall be paid into ComReg's Nominated Bank Account. Details are set out in the Application Form in Annex 3. ComReg reserves the right to change its bank account details during the course of the Licence.

2.40 Where the due date for payment of a fee is not a Working Day, payment shall be made on or before the Working Day immediately preceding that due date.

2.41 A Winning Bidder who fails to pay a SAF or first SUF by the applicable due date or dates may forfeit its Deposit and its entitlements to be granted the Licence concerned. Any such forfeiture of a Deposit or non-granting of a Licence will not prejudice ComReg's entitlement to recover the full amount of the SAF and/or first SUF as a simple contract debt.

2.42 A Licensee who has been granted a Licence but who subsequently fails to pay any SUF on or before its due date will have failed to comply with a Licence condition and ComReg, in such circumstances, may take such actions as it considers appropriate including, but not limited to, the following:

- ComReg may seek to recover the amount due as a simple contract debt in any civil court of competent jurisdiction; and/or
- ComReg may take such enforcement action as it considers appropriate. Interested Parties should note, in this regard, that if a SUF is not paid in full on or before its due date then the associated Licence shall be deemed not to have been granted and not to be in effect. This means that any Apparatus, which would have been licensed had the SUF been paid in full, shall be deemed to be unlicensed for so long as the SUF remains unpaid, and the possession and/or use of any such unlicensed Apparatus shall be an offence.

2.43 A Licensee shall pay interest on any fee or part thereof that has not been paid by its due date and is outstanding. The applicable interest rate shall be that

which applies to late payments in commercial transactions under the European Communities (Late Payment in Commercial Transactions) Regulations 2012 (S.I. No. 580/2012), as amended. The applicable time period for any interest payment shall run from the date on which the full / partial fee fell due to the date on which the full / partial fee is paid.

2.2.5 Refunds of Licence Fees

2.44 Where a Licensee requests an amendment to its Licence, which is acceded to by ComReg and which results in a reduction in the:

- quantum of rights of use for radio frequencies held under the Licence¹⁷;
or
- the duration of one or more Lots held under the Licence,

the Licensee shall not be entitled to any refund of the applicable SAF, or previous SUF payments, but shall be entitled to a refund in respect of the excess of any SUF already paid in that year.

2.45 A Licensee who surrenders any Lots held under its Licence will not be liable for any further SUF payments in respect of such surrendered Lots, beyond the date upon which the Licensee ceases to have use of those Lots under its amended Licence.

2.46 Where a Licence is amended, surrendered, or withdrawn following an enforcement action by ComReg, ComReg will not refund any fees (SAF or SUFs) already paid by the Licensee concerned in respect of such Licence.

2.2.6 Enforcement Actions – Compliance with Licence Conditions, Licence Suspension and Licence Withdrawal

2.47 ComReg shall enforce conditions attaching to Licences in accordance with its statutory powers, including those set out in the Authorisation Regulations.

2.48 A Licence may be suspended or withdrawn in accordance with the Authorisation Regulations.

2.49 If enforcement action by ComReg results in the suspension, withdrawal, or foreshortening of a Licence or part thereof, ComReg will not refund any fees (SAF or SUFs) already paid by the Licensee concerned in respect of such Licence.

¹⁷ That is, a reduction in the Licensee's assigned quantum of rights of use in the 400 MHz Band.

2.2.7 Amending a Licence

2.50 ComReg may amend any of the rights, obligations, conditions, and procedures relating to a Licence, from time to time and in accordance with the Authorisation Regulations.

2.2.8 Regulations and Indicative Licence

2.51 An indicative Licence is set out in Schedules 1 and 2 to the Regulations (Annex 2):

- Part 1 details the frequency(ies) assigned to the Licensee;
- Parts 2 and 3 specify the Apparatus which the Licensee is permitted to keep, possess, install, maintain, work and use and the location and details of same;
- Part 4 details the technical and roll-out conditions for parties who use the spectrum for the provision of wireless connectivity for Smart Grid; and
- Part 5 details third party and roll-out conditions for parties who do not use the spectrum for the provision of wireless connectivity for Smart Grid.

Chapter 3

3 The Award Process

3.1 This chapter describes the various stages of the Award Process for both Part A and Part B Awards.

3.1 Lots Available

3.2 There are two types of Lots being made available in this Award Process.

Part A

3.3 The Part A Lot consists of one 2 x 3 MHz Lot from 410 – 413 MHz / 420 – 423 MHz for the provision of wireless connectivity of a Smart Grid.

3.4 The rights of use for the Part A Lot will be made available on a national basis using an FDD band plan. A Winning Bidder of a Part A Lot can only be a Network Utility Operator as defined in Annex 1.

3.5 The Part A Lot has a specific frequency range and therefore will not be subject to an Assignment Stage.

3.6 A 400 MHz Band Licence for a Part A Lot will come into operation on the Commencement Date of the Licence and will remain in operation for the duration of that Licence, up to a maximum term of 15 years, subject to the applicable fees and Licence conditions being met.

3.7 A Reserve Price of €240,000 and annual SUFs of €39,000 (index-linked to the CPI) will apply to the Part A Lot.

3.8 If there is only one Bidder for the Part A Lot, that Lot will be assigned to that Bidder at the Reserve Price. If there is more than one Bidder for the Part A Lot, the Part A Assessment Stage will take place first to determine the Winning Bidder of the frequency specific Lot and the associated Price.

Part B

3.9 The number of Part B Lots available is dependent on whether the Part A Lot is assigned or not:

- If the Part A Lot is assigned there will be ten 2 x 100 kHz Part B Lots covering the frequency range 413 – 414 MHz / 423 – 424 MHz.
- If the Part A Lot is not assigned, there will be forty 2 x 100 kHz Part B Lots covering the frequency range 410 – 414 MHz / 420 – 424 MHz.

- 3.10 Spectrum rights of use in Part B Spectrum will first be assigned on a frequency-generic basis in the Assessment Stage. The number of Lots assigned to each Bidder will be established on the basis of Bids made for different numbers of frequency-generic Lots.
- 3.11 Each Lot will come into operation on the Commencement Date of the Licence concerned and will remain in operation for the duration of that Licence, up to a maximum term of 15 years subject to the applicable fees and Licence conditions being met.
- 3.12 A Reserve Price of €8,000 and annual SUFs of €1,300 (index-linked to the CPI) will apply to each Part B Lot.
- 3.13 The specific frequencies to be assigned to winners of frequency-generic Part B Lots (Winning Bidders) will be determined subsequently, in a separate Assignment Stage. See Section 3.6.

3.2 Process Overview and Timeline

- 3.14 The Award Process will comprise of the following stages:
- (i). **Application Stage** – Applicants must submit Applications to ComReg to participate in the Award Process. Applications to ComReg for participation in the Award Process are made in accordance with the procedures described in Section 3.3. An Application must include Bid(s) for a Package(s) of Lots at Reserve Prices (“Application Bids”) and a monetary Deposit. Further details on the Application Stage is in Section 3.3.
 - (ii). **Qualification Stage** – ComReg will assess all Applications received in order to determine which Applicants are qualified to participate in the Auction, if required. A qualified Applicant will thereafter be referred to as a Bidder. A Bidder that is eligible to Bid for the Part A Lot will be referred to as a ‘Part A Bidder’. A Bidder that is eligible to Bid for the Part B Lots will be referred to as a ‘Part B Bidder’. A Part A Bidder may also be a Part B Bidder and permitted to Bid for Part B Lots. ComReg will also establish whether an Assessment Stage is necessary and the number of Part B Lots that will be available, based on the demand expressed by Bidders in their Applications. Further details on the Qualification Stage are in Section 3.4.
 - (iii). **Assessment Stage** (see Section 3.5 below) – The Assessment Stage comprises up to two sub-stages:
 - if there is more than one Part A Bidder, the **Part A Assessment Stage** will determine the Winning Bidder for the Part A Lot, the Price that the Winning Bidder will have to pay

for the Part A Lot, and potentially whether or not a Part B Assessment Stage is required¹⁸; and

- if there is excess demand for the Part B Lots (based on Bidders' Initial Bids), the **Part B Assessment Stage** will commence after completion of the Part A Assessment Stage and determine the number of Part B Lots to be awarded to each Bidder and the Prices that Winning Bidders will have to pay for their Part B Lots.

The Part A Assessment Stage and the Part B Assessment Stage will each use an Auction process to determine Winning Bidders, Winning Bids and the Prices that Winning Bidders will have to pay, based on the demand expressed by Bidders for Lots.

- (iv). **Assignment Stage** – ComReg will determine the specific frequencies to be assigned to each Winning Bidder awarded Part B Lots. Further details on the Assignment Stage are in Section 3.6.
- (v). **Notification and Grant Stage** – ComReg will notify the Winning Bidders of their entitlement to apply for and be granted a Licence in accordance with the outcome of the Award Process, subject to certain conditions being met including the payment of fees. Further details on the Notification and Grant Stage are set out in Section 3.7.

3.15 The indicative timeline for the Award Process is set out in Table 1 below.

Stage	Milestone	Indicative Timeline
Application Stage	Publication of Final IM on the ComReg website	Friday 30 August 2019
	Deadline for submission of questions regarding the Award Process	16:00 hours on Friday 13 September 2019

¹⁸ The number of Part B Bidders (and total demand for Part B Lots expressed in Initial Bids for the Part B Assessment Stage) may be dependent on the outcome of the Part A Assessment Stage i.e. a Network Utility Operator may specify (on its Application Bid Form) demand for Part B Lots at different levels depending on whether it does or does not ultimately win the Part A Lot. If there is excess demand for the Part B Lots based on Bidders' Applications, irrelevant of the outcome of the Part A Assessment Stage, a Part B Assessment Stage will always be required. Similarly, if there can never be excess demand for the Part B Lots based on Bidder's Applications, a Part B Assessment Stage will not be required. Whether or not there is excess demand for the Part B Lots based on Initial Bids is dependent on the outcome of the Part A Assessment Stage, it will only be possible to know if a Part B Assessment Stage is required after completion of the Part A Assessment Stage.

	Final date for ComReg to publish its responses to questions regarding the Award Process on its website	16:00 hours on Friday 27 September 2019
	ComReg will accept telephone calls for confirmation of Deposits	Friday 4 October 2019*
	Deadline for submission of Application Form	17:30 hours on Friday 11 October 2019*
	Deadline for submission of Deposits	23:59 hours on Friday 11 October 2019*
	Restrictions on Award related communication come into effect	On submission of first Application to ComReg
Qualification Stage	Deadline for withdrawal of Application	16:00 hours on Friday 25 October 2019*
	<p>Each Applicant to be informed by ComReg about whether or not it has become a Part A Bidder and/or a Part B Bidder.</p> <p>Confirmation to Part A Bidders and Part B Bidders of the requirement for a Part A Assessment Stage and notification of the scheduled start date for mock auctions;</p> <p>or</p> <p>Confirmation that there is no requirement for a Part A Assessment Stage.</p> <p>Confirmation to Part B Bidders of the requirement for a Part B Assessment Stage and notification of scheduled start date of mock auctions;</p> <p>or</p>	Friday 8 November 2019*

	<p>Confirmation that there is no requirement for a Part A Assessment Stage or a Part B Assessment Stage.</p> <p>Confirmation to any Winning Bidders of Part B Lots of the scheduled start date of the Assignment Stage, where required</p>	
	<p>Return of Deposits to Applicants who have not become a Bidder</p>	<p>Friday 15 November 2019*</p>
	<p>Circulation of Part A Bidder materials for accessing and using the EAS to Part A Bidders (if required)</p>	<p>TBD</p>
<p>Part A Assessment Stage (if required)</p>	<p>Auction to determine the Winning Bidder for the Part A Lot and the Price to be paid</p>	<p>TBD</p>
	<p>Following the Part A Assessment Stage, confirmation to Part A and Part B Bidders of the requirement for a Part B Assessment Stage and notification of scheduled start date of the Part B Assessment Stage;</p> <p>or</p> <p>Confirmation that there is no requirement for a Part B Assessment Stage.</p> <p>Where there is no requirement for a Part B Assessment Stage notification to Winning Bidders of Part B Lots of the scheduled start date of the Assignment Stage, if required</p>	<p>TBD</p>

	Circulation of Part B Bidder materials for accessing and using the EAS to Part B Bidders	TBD
Part B Assessment Stage (if required)	Auction to determine the number of frequency-generic Part B Lots to be assigned to each Bidder and the Prices to be paid. Confirmation to Winning Bidders of Part B Lots of the scheduled start date of the Assignment Stage, if required	TBD

Table 1. Indicative timeline for the Award

* Note: These dates are subject to the Minister for Communications, Climate Action and Environment giving consent to the Regulations and are therefore subject to change. ComReg will make an announcement on its website notifying Interested Parties of any such change.

- 3.18 All references to a specific time of day in this IM are to Irish time.
- 3.19 ComReg is currently not in a position to announce with certainty the timing of the later stages of the Award Process as these will depend on the outcome of earlier stages in the Award Process and/or circumstances outside ComReg's control.
- 3.20 ComReg will provide further information on the timing of these later stages to the relevant Bidders during the course of the Award Process. The timelines for these later stages will be in accordance with the provisions of this IM which, amongst other things, provides that:
- The start date of the Part A Assessment Stage will be notified to Part A Bidders with at least ten Working Days prior notice.
 - The start date of the Part B Assessment Stage will be notified to Part B Bidders with at least ten Working Days prior notice.
 - The Assignment Stage for Part B Lots (if required) may commence one Working Day after the completion of the Part B Assessment Stage.
- 3.21 ComReg reserves the right to vary the indicative timelines as may be necessary to take account of any changed or unforeseen circumstances. ComReg will give appropriate notice of any variation to a timeline by issuing a public notice on its website or, depending on the stage of the Award Process, by notifying the affected parties (i.e. Applicants or Bidders).
- 3.22 An Applicant is strictly prohibited:

- from engaging in any form of direct or indirect cooperation or collusive behaviour, of any kind whatsoever, with any other Applicant or with any stakeholder or third party, as would or could influence the Award Process or the outcome of the Award Process;
 - prior to and following the Application Stage, from making any public announcement, of any kind whatsoever, concerning its potential or actual participation in the Award Process, including any announcement as to the fact that the Applicant may be, or is, participating in the Award Process or relating to the Applicant's Bids or bidding strategies or to any other aspect of the Applicant's participation in the Award Process; and
 - prior to and following the Application Stage, from directly or indirectly disclosing any information to any other Applicant, stakeholder or third party, including any disclosure as to the fact that the Applicant may be, or is, participating in the Award Process or relating to the Applicant's Bids or bidding strategies or to any other aspect of the Applicant's participation in the Award Process.
- 3.23 An Applicant who breaches any Award Rule may be excluded from the Award Process, depending on the severity of the breach. All decisions, as to whether there has been a breach, the severity of any breach and the consequences for any breach, shall be made by ComReg and shall be final.
- 3.24 An Applicant excluded from the Award Process for having breached one or more of the Award Rules:
- will remain liable for its Bids and for full payment to ComReg of any fees which the Applicant would have paid had it remained in the Award Process and become a Winning Bidder; but
 - will not be granted any of the rights of use for radio frequencies in the 400 MHz Band which it otherwise would have acquired, had it remained in the Award Process and become a Winning Bidder.
- 3.25 ComReg, at its sole discretion, may decide to void the Bid(s) of any Bidder who has been excluded from the Award Process. A voiding of any Bid may require a re-calculation of Winning Bids and additional Deposit Calls.

3.3 Application Stage

- 3.26 The Award Process begins on the date of publication of this IM.
- 3.27 The deadline for all Interested Parties to submit their Applications to participate in the Award Process is **17:30 hours on Friday 11 October 2019** (the "**Application Date**").

- 3.28 A submitted Application, in order to be deemed valid and complete, must include the following:
- completed Application Form¹⁹;
 - cleared monetary Deposit into ComReg's Nominated Bank Account; and
 - all required documentation annexed to the completed Application Form.
- 3.29 An Interested Party who submits an Application to ComReg is thereafter referred to as an Applicant.
- 3.30 An Applicant who submits a complete and valid Application shall be eligible to participate in the Award Process as a Bidder.
- 3.31 A writeable PDF format of the Application Form will be made available on the ComReg website.
- 3.32 A complete Application Bid Form represents a binding offer to pay the SAF and annual fees linked to each of the Lots specified in this IM in exchange for a Licence for those Lots, in accordance with the outcome of the Award Process and the IM.

Joint Bidding

- 3.33 Prior to the Application Date for the submission of Applications, Interested Parties can decide, if they wish, to bid jointly in the Award as a consortium. This consortium will be deemed to be a single entity for the purposes of the Award Process and in the event of this single entity becoming a Winning Bidder in the Award, a 400 MHz Band Licence would be issued to this consortium as a single entity. ComReg envisages that this could be a useful option for smaller potential Bidders.

Questions

- 3.34 Interested Parties may submit questions on the Award Process and Award Rules. The deadline for submitting questions is **16:00 hours on Friday 13 September 2019**. ComReg will acknowledge receipt of all questions and all questions received prior to the deadline will be replied to on an ongoing basis and, where possible, within 10 Working Days.
- 3.35 Questions must be delivered by hand (including by courier) to ComReg's offices and must be addressed as follows:

Mr Patrick Bolton (RE: 400 MHz Award Process)

¹⁹ See Annex 3.

**Market Framework Division
Commission for Communications Regulation
One Dockland Central
Guild Street
Dublin 1
Ireland
D01 E4X0**

- 3.36 Interested Parties may not submit questions by standard post or in any electronic format. Any questions received by post or electronically will not be answered. Receipt of questions will be acknowledged by ComReg. Interested Parties are required to provide a name and address within the sealed envelope in order for ComReg to acknowledge receipt of questions.
- 3.37 ComReg will publish on its website all questions and its responses to same no later than **16:00 hours on Friday 27 September 2019**, on an anonymised basis and subject to protecting any confidential information therein in accordance with ComReg's guidelines on the treatment of confidential information²⁰.
- 3.38 Questions should be submitted in a sealed envelope. Interested Parties are responsible for the submission of their questions, including the anonymity of same. Therefore, any Interested Party who submits a question or questions should ensure that the sealed envelope containing same does not bear any mark, of any kind whatsoever, as could identify that Interested Party.
- 3.39 ComReg requires that any questions containing confidential material²¹ 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.
- 3.40 ComReg reserves its right, where appropriate, to amend any previous responses to questions made by it up until **16:00 hours on Friday 27 September 2019**, such that responses made before this date are for general guidance only and should not be considered as final, or be relied upon, until after **16:00 hours on Friday 27 September 2019**.

²⁰ ComReg Document 05/24 – Response to Consultation - Guidelines on the treatment of confidential information – published 22 March 2005.

²¹ 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).

3.3.1 Application Form and Supporting Documents

3.41 Each Applicant must complete and sign the Application Form in Annex 3.

3.42 Each Applicant may submit one Application only.

3.43 The Application Form consists of four parts:

- Part 1: **Administrative Information;**
- Part 2: **Applicant Declaration;**
- Part 3: **Application Bid Form;** and
- Part 4: **Utility Network Details (only relevant for Network Utility Operators applying for the Part A Lot).**

3.44 In completing Part 1 of the Application Form, titled “Administrative Information”, an Applicant must also submit appropriate evidence that all persons who sign the Application Form (“Authorised Agents”) are duly authorised by the Applicant to do so. Appropriate evidence would include any or all of the following:

- a board resolution from an Applicant which is a company registered in Ireland;
- where an Applicant is incorporated in the European Union, evidence that the Authorised Agent/s is/are registered pursuant to the appropriate national implementing measures transposing Article 10 of Directive 2009/101/EC (Regulation 7 of S.I. 306 of 2014 in Ireland);
- an irrevocable power of attorney; or
- equivalent evidence for any Applicant from outside Ireland supported by a legal opinion from a law firm in the Applicant's jurisdiction carrying in excess of €20,000,000 in professional indemnity insurance, addressed to ComReg and certifying that the Authorised Agent/s is/are entitled to bind the Applicant contractually.

3.45 Irrespective of the type of Lots(s) it is applying for, an Applicant:

- in the electricity sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with a copy of the relevant licence granted by the Commission for Regulation of Utilities,
- in the gas sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with: a written statement signed by an Authorised Agent confirming that it is the company, or a subsidiary of the company, the functions of which are laid

out in section 8 of the Gas Act 1976 and in section 11 of the Gas (Interim) (Regulation) Act 2002, or a Network Utility Operator in the gas sector can provide ComReg with a copy of the relevant licence(s) granted by the Commission for Regulation of Utilities to own and operate a transmission or distribution system under section 16(1) of the Gas (Interim) (Regulation) Act 2002, as appropriate; and

- in the water sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with a written statement signed by an Authorised Agent confirming that it is the private company limited by shares formed by virtue of section 4 of the Water Services Act 2013 as amended.

3.46 The 'Applicant Declaration' in Part 2 of the Application Form must be signed by the Applicant (i.e. or by a person duly authorised to sign the Applicant Declaration on behalf of the Applicant²²). The Applicant, in signing and submitting the Applicant Declaration in Part 2 of the Application Form, agrees to be bound by the Award Rules set out in this IM, including but not limited to the rules relating to agreements with third parties, confidentiality, and Bidder behaviour²³.

3.47 Part 3 of the Application Form, entitled "**Application Bid Form**", lists the number of Lots available and the Reserve Price per Lot. On its Application Bid Form, an Applicant can place Application Bids which must specify the number of Lots it is willing to buy at the applicable Reserve Price.

3.48 The Application Bid Form is divided into two sections:

- Section 1 is for Network Utility Operators that are applying for the Part A Lot only, or the Part A Lot and a number of Part B Lots. Network Utility Operators can place an Application Bid for Part B Lots up to a maximum of ten Lots.
 - Table 4 of the Application Bid Form refers to the number of frequency-generic Part B Lots a Network Utility Operator would want to acquire at the Reserve Price in the event that it **wins** the Part A Lot.
 - Table 5 of the Application Bid Form refers to the number of frequency-generic Part B Lots a Network Utility Operator would want to acquire at the Reserve Price in the event that it **does not win** the Part A Lot.

²² If the Applicant is a partnership, a joint venture or equivalent, the Declaration must also be signed by the relevant partners or participants.

²³ Which apply in addition to but without prejudice to Irish and EU competition law.

- Section 2 is for other Applicants who can place Application Bids for Part B Lots, up to a maximum of ten Lots where there is a Winning Bidder for the Part A Lot (Table 6 of the Application Bid Form), or up to forty Lots where there is no Winning Bidder for the Part A Lot (Table 7 of the Application Bid Form).
- 3.49 In the event that there is a single Application from a Part A Bidder, a Part A Assessment Stage will not be required and the Part A Bidder will be awarded the Part A Lot. In the event that a Part A Assessment Stage is required, each Part A Bidder's Initial Bid for the Part A Assessment Stage (determined in accordance with the provisions set out in Section 3.3.2) will remain as a binding Bid that could become a Winning Bid.
- 3.50 In the event that a Part B Assessment Stage is not required, Bidders will be awarded the number of Part B Lots specified in their Initial Bids for the Part B Assessment Stage (determined in accordance with the provisions set out in Section 3.3.2). In the event that a Part B Assessment Stage is required, a Bidder's Initial Bid for the Part B Assessment Stage will remain as a binding Bid that could become a Winning Bid.
- 3.51 Irrespective of the type of Lot(s) it is applying for, an Applicant which is a Network Utility Operator must complete and submit, as part of its Application, the utility network details in the relevant table (Table 8, Table 9 or Table 10 of the Application Form) accompanied by a table showing the names, addresses and coordinates²⁴ of each asset type, and the signed declaration set out in Part 4 of the Application Form. When submitting the utility network details, the table must clearly identify the number, and type of elements in the network.
- 3.52 If at any point during the Award Process a Bidder is found by ComReg to have submitted information which is materially incomplete, incorrect or unclear, ComReg shall have the discretion to take whatever measures it deems appropriate, including requiring any Bidder to verify information already provided and/or to provide additional information and supporting evidence.
- 3.53 If any of the Application Bids specified in an Applicant's Application Form includes Lots that, if awarded, would exceed the number of available Lots, ComReg may, at its discretion, contact the particular Applicant and seek to resolve the issue by having the Applicant amend its Application Bid Form. If ComReg is unable to resolve the issue in this manner, ComReg shall reject the Application on the basis that it is invalid and shall notify the Applicant of its decision.
- 3.54 An Application Form that has been completed, signed, and submitted shall represent an unconditional offer by the Applicant concerned to buy the Lots

²⁴ Coordinates must be provided in Latitude / Longitude format and in Degrees, Minutes and Seconds.

specified by the Applicant in its Application Bid Form, at the Reserve Prices, and to pay the applicable SAF and all SUFs over the full term of the Licence.

- 3.55 In submitting its Application Form, an Applicant agrees to be bound by the terms and conditions of the Award Process as set out in this IM which, amongst other things, include the following:
- the Applicant agrees that in the event that it identifies or suspects an error or omission in the rules of the Award Process or the implementation of these rules by the Electronic Auction System (“EAS”) it shall notify ComReg at the earliest opportunity;
 - its agreement that if it becomes a Winning Bidder of Part B Lots it will participate in and be bound by the outcome of the Assignment Stage; and
 - the Applicant agrees that if it should become a Winning Bidder then its failure to obtain any consents, approvals, apparatus or funding necessary to deploy a network shall be deemed to be a breach of the Award Rules.

3.3.2 Completion of the Application Bid Form

Network Utility Operators

- 3.56 Applicants who are applying as a Network Utility Operator as per Annex 3 must specify on their Application Bid Form:
- whether it wishes to acquire the Part A Lot at the Reserve Price for the Part A Lot – this should be entered in Table 3 of the Application Bid Form;
 - the number of frequency-generic Part B Lots (up to a maximum of ten) it would want to acquire at the Reserve Price for the Part B Lots in the event that the Bidder were to win the Part A Lot – this should be entered in Table 4 of the Application Bid Form; and
 - the number of frequency-generic Part B Lots (up to a maximum of ten) it would want to acquire at the Reserve Price for the Part B Lots in the event that the Bidder does not win the Part A Lot – this should be entered in Table 5 of the Application Bid Form.

Such Applicants may not provide Bids in Table 6 or Table 7 of the Application Bid Form.

- 3.57 In the event that an Applicant qualifies as a Part A Bidder, its Initial Bid for the Part A Assessment Stage (if required) shall consist of a Bid for the Part A Lot with a Bid Amount equal to the Reserve Price for the Part A Lot.

3.58 In the event that an Applicant qualifies as a Part B Bidder the following will apply:

- If the Bidder wins the Part A Lot, its Initial Bid for the Part B Assessment Stage (if required) shall consist of a Bid for the number of Part B Lots specified in Table 4 of the Application Form, with a Bid Amount equal to the sum of the Reserve Prices for those Lots.
- If the Bidder does not win the Part A Lot, its Initial Bid for the Part B Assessment Stage (if required) shall consist of a Bid for the number of Part B Lots specified in Table 5 of the Application Form, with a Bid Amount equal to the sum of the Reserve Prices for those Lots.

Other Applicants

3.59 Other Applicants should specify on their Application Bid Form:

- the number of frequency-generic Part B Lots (up to a maximum of ten) it would want to acquire at the Reserve Price for the Part B Lots in the event that the **Part A Lot is assigned** – this should be entered in Table 6 of the Application Bid Form; and/or
- the number of frequency-generic Part B Lots (up to a maximum of forty) it would want to acquire at the Reserve Price for the Part B Lots in the event that the **Part A Lot is not assigned** – this should be entered in Table 7 of the Application Bid Form.

3.60 Such an Applicant's Initial Bid for the purpose of the Part B Assessment Stage (if required) shall be determined based on the following:

- If there is a Winning Bidder for the Part A Lot, the Bidder's Initial Bid shall consist of a Bid for the number of Part B Lots specified in Table 6 of the Application Bid Form, with a Bid Amount equal to the sum of the Reserve Prices for those Lots.
- If there is no Winning Bidder for the Part A Lot, the Bidder's Initial Bid shall consist of a Bid for the number of Part B Lots specified in Table 7 of the Application Bid Form, with a Bid Amount equal to the sum of the Reserve Prices for those Lots.

3.61 If an Applicant only submits an Application Bid in Table 7 of the Application Bid Form (i.e. up to 40 Lots) and there is at least one Winning Bidder in the Part A Award, that Applicant/Bidder will be deemed to have not made an Initial Bid for the Part B Assessment Stage.

3.62 Where Applicants wish to change any aspect of their Application, they should contact ComReg as detailed in paragraph 3.35 outlining the nature of the proposed change and justification for same. In relation to any Application Bid

an Applicant wishes to change, the Applicant should set out in detail the reasons for that change and the information which became available since its original Application that necessitates the change. ComReg will have regard to the information provided by the Applicant in determining whether any changes are necessary or permitted.

- 3.63 Any Valid Bid submitted by an Applicant may be selected as a Winning Bid (provided the Applicant qualifies to become a Bidder in the Qualification Stage) in which case the Winning Bidder will be assigned the Lots specified in its Winning Bid subject to the conditions within the IM.

3.3.3 Deposits

- 3.64 Where a Network Utility Operator makes an Application for the Part A Lot, the Network Utility Operator must submit a monetary Deposit with its Application. At a minimum, the amount of the Deposit shall correspond to the Reserve Price for the Part A Lot and the sum of the Reserve Prices for the Lots specified in Table 4 of the Application Bid Form.
- 3.65 Other Applicants must also submit a monetary Deposit with an Application. At a minimum, the amount of the Deposit shall correspond to the sum of the Reserve Prices for the Lots specified in Table 6 of the Application Bid Form. If an Applicant has only provided a Bid for a Package of Lots in Table 7 of the Application Bid Form (i.e. for the case where there is no Winning Bidder for the Part A Lot) the Deposit shall correspond to the sum of Reserve Prices for the Lots specified in Table 7 of the Application Bid Form.
- 3.66 All Deposits must be transferred to the bank account nominated by ComReg as specified in the Application Form and must be received as cleared funds in that bank account before **23:59 hours on Friday 11 October 2019 (“the Application Date”)**. Bidders are cautioned to ensure that the cleared funds received by ComReg are required to be at least the amount of the Deposit specified in euro. Bidders should ensure that the amount of funds received by ComReg is not diminished by bank charges, exchange rate fluctuations or similar matters. Please note that the bank account details provided in the Application Form are different to those used for other ComReg payments. Applicants / Bidders should ensure that Deposits are made to the bank account specified in this IM. Interested Parties are reminded that the only way to ensure receipt of Deposit is as per paragraph 3.72. No other method of communication should be used to confirm receipt of Deposits.
- 3.67 In the event that the Part A Lot is not assigned, and prior to the Part B Assessment Stage, ComReg may give notice to one or more Part B Bidders requiring them to increase their Deposits (a Deposit Call) to an amount up to

the sum of the Reserve Prices for the Lots specified by the Part B Bidder in Table 7 of its Application Bid Form.

- 3.68 Where an Applicant has provided a Bid for a Package of Lots in Table 7 of the Application Bid Form (up to 40 Lots) but not in Table 6 of the Application Bid Form, and where the Part A Lot is assigned, that Applicant's Deposit will be returned to it in accordance with the timelines set out in Section 3.2.
- 3.69 If a Deposit Call is issued, ComReg will specify a time period of not less than three consecutive Working Days during which the notified Bidder's additional Deposit funds must be received by ComReg as cleared funds in its nominated bank account (as specified in Annex 3) and not any other ComReg bank account.
- 3.70 If any Bidder who is subject to this Deposit Call does not provide the required additional cleared Deposit funds by the set deadline, ComReg at its discretion may void the Bidder's Bids.
- 3.71 Where any part of this IM indicates that:
- an Applicant or Bidder may in part or whole forfeit its Deposit; and/or
 - ComReg may impose a sanction on an Applicant / Bidder that includes forfeiture of all or part of the Deposit paid by that Applicant / Bidder on Application,

ComReg will adopt a proportionate and fair approach taking into account its statutory objectives and the circumstances of each case (including the nature and seriousness of any breach or non-compliance resulting in forfeiture of all or part of the Deposit concerned).

- 3.72 Where an Applicant/Bidder wishes to confirm receipt of a Deposit, it should contact **Mr. Patrick Bolton** by letter using the method as set out in paragraphs 3.35 – 3.36 or by telephone using the telephone number provided in paragraph 3.116. In order to ensure the rules on confidentiality and Bidder behaviour are not breached a Bidder/Applicant should not contact any other persons by letter or contact ComReg using any other telephone number. ComReg will only receive such telephone calls between **16:00 – 17:00 hours** on every Working Day from **Friday 4 October 2019** until the public announcement by ComReg on the outcome of the Award Process. No other method of communication should be used to confirm receipt of Deposits.

3.3.4 Confidential Information and Bidder Behaviour

- 3.73 This section sets out the rules that shall govern the behaviour of Applicants/Bidders through the Award Process, from submission of Applications until the public announcement of the outcome of the Award

Process by ComReg. All Applicants/Bidders are required to refrain from any action that could undermine the running of the Award Process or its results. The Award Rules include specific rules on treatment of Confidential Information and Bidder behaviour, restrictive practices capable of distorting the Award Process, and the behaviour of employees and legal entities that are related or connected to a Bidder.

- 3.74 For the avoidance of doubt, the rules set out in this IM are in addition to, and not in substitution for, Irish and EU competition laws which shall continue to apply to all Interested Parties, Applicants, and Bidders at all times, regardless of this Award Process.
- 3.75 An Applicant, in its Application, must confirm that it has complied, and will continue to comply at all times, with the Award Rules and that it has taken all reasonable measures to ensure that its employees and Insiders²⁵ have likewise complied, and will continue to comply at all times, with the Award Rules.
- 3.76 If at any point it should become apparent that an Applicant or Bidder, and/or any Insider of an Applicant or Bidder, has failed to comply with the Award Rules, the Applicant or Bidder concerned will be deemed responsible for that breach and may, depending on the nature and seriousness of the breach, be excluded from the Award Process (which would include forfeiting all or part of its Deposit). In certain circumstances, ComReg may also suspend or withdraw a Licence granted to a Winning Bidder if, after the granting of the Licence, it should emerge that the Winning Bidder and/or any of its Insiders breached the Award Rules.
- 3.77 The rules on Confidential Information in this section shall bind all Applicants (even if they are unsuccessful in becoming Bidders) and Bidders and shall apply from the Application Date, until ComReg has publicly announced the outcome of the Award Process.

Confidential Information and Insiders

- 3.78 “**Confidential Information**” means any information not in the public domain which, if it became known to a Bidder, may influence the amount which that Bidder is willing to bid for Lots or the Bidder’s strategy in bidding for Lots. Confidential Information includes but is not limited to any information as to a Bidder’s:
- (i). Business case;
 - (ii). Pre-Auction activities;
 - (iii). Auction strategy;

²⁵ See paragraph 3.81 for a definition of an Insider.

- (iv). Prices it is willing to Bid for spectrum in the Award Process;
- (v). Authorised Agents' identities;
- (vi). Participation in the Award Process / Auction; and
- (vii). The composition and value of all Bids made by the Bidder in the Award Process.

3.79 Confidential Information includes any information concerning the outcome of any stage of the Award Process, regardless of whether such information is specific to the Bidder.

Insiders

3.80 Each Applicant must submit a list of its "Insiders" to ComReg, to be included in its Application, and an Applicant (or Bidder as the case may be) must inform ComReg thereafter of every change to its list of Insiders.

3.81 An "Insider" is any legal entity or a natural person which has:

- received Confidential Information about a Bidder;
- either by itself or in concert with another person or other persons has an agreement, wholly or partly, to finance or otherwise assist the Bidder in connection with the Award Process; and/or
- provided advice to the Bidder in formulating its Bid strategy and/or business case in connection with the Award Process.

3.82 An Insider can be a legal entity or a natural person. For example, an Insider can be a bank or other funder with knowledge of a Bidder's business case, valuations or Bid ceilings, or an Insider can be an auditor, consultant, lawyer, economic adviser or other professional assisting in the preparation of a Bid.

3.83 Except where acting in accordance with an exemption from the rules on common Insiders as described below, Insiders shall not convey Confidential Information to any other person, either by making such information public or by communicating such information, whether directly or indirectly, through any intermediate source.

3.84 It is possible that, at the Application Date, a Bidder may be unaware that it has a common Insider with another Bidder. If ComReg finds that two or more Bidders have a common Insider, it shall notify the Bidders concerned and shall:

- set a deadline for the Bidders concerned to apply for an exemption from the rules on common Insiders; or
- require one or more of the Bidders concerned, as appropriate, to terminate its relationship with the common Insider insofar as the Award Process is concerned.

- 3.85 If the Bidders concerned are not granted an exemption by ComReg and/or if they do not alter the common Insider situation to ComReg's satisfaction, ComReg shall exclude all such Bidders from further participation in the Award Process. If the relationship comes to light later in the Award Process (for example, after the Assessment Stage has commenced) ComReg may exclude all Bidders concerned from further participation in the Award Process (see Sanctions below) and this may include forfeiture of all or part of their Deposits.
- 3.86 In certain circumstances, ComReg may also suspend or withdraw a Licence granted to a Winning Bidder if, after the granting of the Licence, it emerges that the Bidder, or its Insiders breached (a) the Award Rules, or (b) the agreement with ComReg described in Chapter 4. ComReg, in such circumstances, may also declare the result of the Award Process as not binding, wholly or partly, on ComReg.
- 3.87 If two or more Bidders have a common Insider, and if it is not possible to resolve the situation within the deadline set by ComReg, and if ComReg does not grant an exemption from the rules on common Insiders, then one or more of the Bidders may withdraw from participation in the Award Process before the deadline set by ComReg, in order that ComReg will not be required to exclude all such Bidders from the Award Process.

Exemption from Insider Rules

- 3.88 ComReg, in exceptional circumstances and at its sole discretion, may grant an exemption from the rules on common Insiders, as described above, and may attach terms to any such exemption. In considering whether to grant such an exemption and on what terms, if any, ComReg will:
- (a) consider the arrangements put in place by a common Insider to prevent the sharing of Confidential Information relating to one Bidder with individuals acting for, or connected, with another Bidder;
 - (b) require the provision of information by any or all of the Bidders concerned including, but not limited to, the following:
 - (i). details of all individuals within the common Insider who have acted or are acting for each Bidder;
 - (ii). an organisation chart showing the position of each individual identified under (i) within the common Insider;
 - (iii). a copy of any policies, procedures, and manuals used by the common Insider relating to the segregation of Bidder data;
 - (iv). a written undertaking from the common Insider, in a form acceptable to ComReg, to put in place sufficient safeguards to ensure the segregation of all Confidential Information relating to

Bidders for which it acts and not to use any common personnel for different Bidders.

- 3.89 If one or more Bidders seeks an exemption from the rules on common Insiders it will, as part of its application for such exemption, consent to ComReg contacting the managing director, managing partner, or person occupying an equivalent position in the common Insider, in order to seek the appropriate written undertaking which, if given, shall be expressed to be for the benefit of ComReg.

Disruption to the Award Process

- 3.90 A Bidder shall refrain from undertaking any action that is intended, or is likely, to distort the outcome of the Award Process.
- 3.91 Without prejudice to the generality of the above paragraph, a Bidder shall refrain from doing any of the following:
- disclosing any Confidential Information beyond the Bidder and its Insiders;
 - disclosing any Confidential Information in breach of an undertaking given by the Bidder pursuant to an exemption to the rules on Insiders granted by ComReg;
 - knowingly seeking to obtain and/or obtaining Confidential Information in relation to any other Bidder;
 - communicating with any other Bidder with the intent of coordinating bidding within the Award Process or with the knowledge that such communications could result in coordinated bidding within the Award Process;
 - entering into agreements with any other Bidder in relation to the Award Process; and
 - for the duration of the Award Process, exchanging information or coordinating or entering into agreements with any other Bidder regarding their strategy for the future use of any Licence obtained on foot of the Award Process.
- 3.92 The above requirements shall be binding from the date of publication of this IM until ComReg has publicly announced the final outcome of the Award Process – i.e. the requirements shall bind Applicants (for any period of time in which they are considering whether to submit an Application or preparing an Application for submission), actual Applicants, Bidders, and Winning Bidders.

- 3.93 Subject to ComReg's discretion to determine otherwise, any merger or acquisition that may occur during the Award Process shall not be considered to be an act that could adversely affect the Award Process, provided that such a merger or acquisition would not result in a member of one Insider also being a member of another Insider.
- 3.94 Notwithstanding the provisions set out in the paragraphs above, a Bidder or Insider may disclose Confidential Information to its employees, agents or other representatives, and vice versa, where this is necessary for the purposes of:
- determining the Bidder's participation and preparing for its participation in the Award Process, including its Bid strategy;
 - assisting the Bidder in its participation in the Award Process; and
 - dealing with commercial and regulatory matters following, and directly concerned with, the outcome of the Award Process, including, for example, liaison with ComReg prior to the grant of Licences.
- 3.95 However, a Bidder or Insider may **not** disclose Confidential Information to any other Bidder, except with ComReg's prior written consent.
- 3.96 Where a Bidder becomes aware of any action by a Bidder or Insider (whether intentionally or inadvertently) that may distort the outcome of the Award Process, it should notify ComReg immediately and without delay in line with the process described in paragraph 3.99 – 3.103 below. ComReg may, at its discretion, suspend or continue the Award Process while investigating any such concerns. Any such actions may be a breach of the Award Rules subject to a series of possible sanctions as described in this IM.

Restrictive Agreements

- 3.97 Until the Award Process has been completed and ComReg has publicly announced the outcome of same, Bidders and their Insiders shall not enter into any agreements or establish any understandings with providers of equipment or software, either before or after the submission of Applications, where any such agreement or understanding would, directly or indirectly:
- restrict any such provider's ability to supply equipment or software to another Bidder regarding the planning, establishment or operation of a network in Ireland involving the Lots which are subject to the Award Process; or
 - restrict the prices or other terms and conditions that a provider could offer to another Bidder regarding the planning, establishment or operation of

a network in Ireland involving the Lots which are subject to the Award Process.

- 3.98 Prior to or during the Award Process, a Bidder, or its Insiders may not enter into any agreement or establish any understanding with a third party which agreement or understanding would direct, prohibit, or otherwise prevent the third party from participating in the Award Process or would in any way restrict the third party's ability to participate in the Award Process.

Reporting breaches of the Award Rules

- 3.99 If any Applicant or Bidder wishes to notify ComReg about a potential breach of the Award Rules or other offending behaviour, it should notify ComReg using the process described below and outline the nature of the potential breach or other offending behaviour.
- 3.100 During the Award Process, ComReg will be available to receive information on any potential breaches or other offending behaviour from Applicants or Bidders on every Working Day from **Monday 2 September 2019** until the public announcement by ComReg on the outcome of the Award Process.
- 3.101 Breaches of the Award Rules should be reported as follows:
- If, during the Award Process, but not during the Part A Assessment Stage or the Part B Assessment Stage, any Applicant or Bidder becomes aware of any potential breach of the Award Rules or other offending behaviour, that Applicant or Bidder shall be obliged under the Award Rules to notify ComReg by telephone at the earliest opportunity between **09:00 – 10:00 or 16:00 – 17:00 hours**. The number for telephoning is **00353 (01) 804 9761**.
 - If during the Part A Assessment Stage or the Part B Assessment Stage, a Bidder becomes aware of any potential breach of the Award Rules or other offending behaviour, that Applicant or Bidder shall be obliged under the Award Rules to notify ComReg immediately between **09:00 - 17:00 hours** if the Part A or Part B Assessment Stage is currently in progress or before **10:00 hours** the following day if the Bidder becomes aware of the breach following the last scheduled Round of the day. The number for telephoning is **00353 (01) 804 9761**.
- 3.102 ComReg will be recording all phone calls made or received during the Award Process in order to manage technical issues and risks arising, and to ensure the integrity and administrative efficiency of the Award Process. These recordings, which shall be stored securely, shall be retained and used only for these purposes and shall be deleted once they are no longer required by

ComReg for these purposes. In the event of a dispute arising ComReg may seek to rely on the contents of these recordings.

- 3.103 The Applicant or Bidder should also contact **Mr. Patrick Bolton** by letter using the method as set out in paragraphs 3.35 – 3.36 and provide specific details and evidence supporting the claim of a breach of the Award Rules or other offending behaviour. In order to ensure the rules on confidentiality and Bidder behaviour are not breached a Bidder should not contact any other persons by letter or contact ComReg using any other telephone number.

Sanctions

- 3.104 In submitting their Applications, all Applicants thereby agree that they shall be subject to a series of possible sanctions for any breach of the Award Rules.
- 3.105 Certain breaches of the Award Rules and other offending behaviours:
- may entitle other Applicants and/or Bidders to seek redress under civil law;
 - may constitute criminal offences (relating to, amongst other things, competition law, fraud, conspiracy, and unlawful use of a computer); and/or
 - may result in liability being imposed on individuals who engaged in such behaviours as well as any organisation(s) concerned.
- 3.106 If an Applicant or Bidder breaches an Award Rule then, subject to ComReg's discretion and depending on the severity of the breach, possible sanctions include, but are not limited to, exclusion of the Applicant or Bidder concerned from the Award Process (which may include forfeiture by the Applicant or Bidder concerned of all or part of its Deposit paid on Application).
- 3.107 If an Applicant or Bidder is excluded from the Award Process then ComReg, at its discretion, may void any or all Bids made by that Applicant or Bidder. For the avoidance of doubt, following the exclusion of an Applicant or Bidder, ComReg may continue with the Award Process unchanged save for the exclusion of that Applicant or Bidder. ComReg further reserves the right to make such alterations to the Award Process as it may consider to be appropriate, at its discretion and having regard to the particular circumstances as may arise.
- 3.108 A breach of any Award Rule/s by an Applicant or Bidder and/or its Insiders may lead to forfeiture by the Applicant or Bidder concerned of all or part of its Deposit paid on Application. The amount of a Deposit to be forfeited for breach of any Award Rule/s will be determined by ComReg, at its discretion and by reference to the nature and severity of the breach and its impact.

3.109 For illustrative purposes only, the following is a non-exhaustive list of actions by an Applicant or Bidder (or by any Insider of an Applicant or Bidder) that may result in an Applicant or Bidder being excluded from the Award Process (including possible forfeiture of all or part of any related Deposit):

- submitting materially²⁶ false or misleading information to ComReg;
- failing to update ComReg, in a timely manner, of any material change to information submitted as part of an Application or during the Award Process;
- failing to disclose to ComReg, in a timely manner, of any breach of the Award Rules by the Applicant/Bidder or any breach of the Award Rules by other Interested Parties.
- colluding or attempting to collude with any other person to distort the outcome of the Award Process, or acting in a way which is likely to distort the outcome of the Award Process;
- disclosing Confidential Information to others during the period of restrictions on communications;
- knowingly obtaining or attempting to obtain Confidential Information in relation to any other Bidder;
- canvassing, directly or indirectly, ComReg Commissioners, any member of staff of ComReg or consultant engaged by ComReg or any person associated in any way with the Award Process; and
- any other breach of the Award Rules or the agreement with ComReg described in Chapter 4 that is not a trivial or inconsequential breach.

3.110 In certain circumstances, ComReg may also suspend or withdraw a Licence granted to a Winning Bidder if, after the granting of the Licence, it emerges that the Winning Bidder, or any of its Insiders, breached the Award Rules or the agreement with ComReg described in Chapter 4.

3.111 Where an Award Rule is breached not by a Bidder but by a Bidder's Insider/s, ComReg shall have discretion to waive or limit the application of sanctions if it can be shown that the breach occurred without the Bidder's knowledge, that

²⁶ Where reference is made in this Information Memorandum to matters being material, ComReg, acting reasonably, shall be entitled to decide whether or not a matter is material. Accordingly, where an Applicant has any doubt as to the materiality of a matter, it should be reported to ComReg.

the Bidder had taken all reasonable steps to avoid the breach, and that the breach has not caused material detriment to the Award Process.

3.112 Nothing in this IM shall preclude ComReg from seeking alternative remedies for a breach of any Award Rule, including, but not limited to, a claim for damages or bringing proceedings under the Competition Act 2002, the Communications Regulation Act 2002, as amended, and/or the Specific Regulations.

3.3.5 Application Procedure

3.113 In order to participate as a Bidder in the Award Process, an Applicant must submit the following:

- in paper format an original completed and signed Application Form including:
 - Part 1: Administrative Information - All sections of Table 1 completed and signed;
 - Part 2: Applicant Declaration signed;
 - Part 3: Application Bid Form completed and signed; and
 - Part 4: Utility Network Details (Network Utility Operators only, irrespective of the type of Lot(s) applied for) and signed declaration.
- in paper format appropriate evidence in respect of Authorised Agents as specified in paragraph 3.44 of the IM.
- irrespective of the type of Lot(s) applied for, where an Applicant is a Network Utility Operator in accordance with the definition in Annex 1, the Applicant must provide the relevant documentation set out in paragraph 3.45 above.
- in paper format, five identical copies of all of the above documentation. The original version of the Application Form should be identified as such.

3.114 ComReg will only accept Applications submitted between **09.00 hours and 17.30 hours** on any of the following five Working Days:

- **Monday 7 October 2019;**
- **Tuesday 8 October 2019;**
- **Wednesday 9 October 2019;**
- **Thursday 10 October 2019; and**
- **Friday 11 October 2019.**

- 3.115 Applicants must make appointments with ComReg to submit their Applications. To make an appointment, an Applicant must contact **Mr Patrick Bolton** by telephone between **10:00 to 13:00 and 14:00 to 16:00 hours** on Working Days between **Friday 4 October 2019 and Friday 11 October 2019** inclusive.
- 3.116 The number for telephoning Mr Bolton is: **00353 (01) 804 9761**. ComReg will be recording all phone calls made or received during the Award Process in order to manage technical issues and risks arising, and to ensure the integrity and administrative efficiency of the Award Process. These recordings, which shall be stored securely, shall be retained and used only for these purposes and shall be deleted once they are no longer required by ComReg for these purposes. In the event of a dispute arising ComReg may seek to rely on the contents of these recordings.
- 3.117 All submitted Applications will be date and time stamped upon being received by ComReg.
- 3.118 Each Applicant will be given a receipt acknowledging the submission of its Application.
- 3.119 No Applications will be opened by ComReg before **Friday 11 October (the Application Date)**. All Applications will be opened at the same time and place and in the presence of an independent auditor.
- 3.120 The deadline for receipt of all Deposits will be **23:59 hours** on **Friday 11 October 2019**.
- 3.121 As noted in Section 3.3 of this IM, ComReg will facilitate the submission of questions about the Award Process on Working Days up until and including **16:00 hours on Friday 13 September 2019**. Starting from **Monday 16 September 2019**, and through to the conclusion of the Notification and Grant Stage, ComReg may decide not to reply to questions from Applicants or Interested Parties except where such communications relate to any breach of the Award Rules or unless specifically requested by ComReg or its agents in accordance with the IM.
- 3.122 Once an Application has been submitted it will constitute a binding offer by the Applicant concerned to purchase the Lots applied for in the completed Application Bid Form.

3.4 Qualification Stage

3.4.1 Evaluating Applications

- 3.123 Once the Application Date has passed, ComReg will evaluate all Applications received within the specified time window on or before the Application Date,

evaluate which Applications are valid²⁷ and assess the level of Aggregate Demand associated with valid Applications. Applicants that submitted valid Applications at the Application Stage that are approved by ComReg become Bidders.

3.124 Upon completion of its assessment of Applications, ComReg will:

- inform each Applicant whether or not it has been approved by ComReg to become a Part A Bidder and/or a Part B Bidder; and
- inform each Part A Bidder and Part B Bidder of whether a Part A Assessment Stage is required.

3.125 If a Part A Assessment Stage is required, ComReg will inform each Part A and Part B Bidder (except those Part B Bidders which only completed Table 7 of the Application Bid Form) of the scheduled start date of the Part A Assessment Stage with at least ten Working Days prior notice.

3.126 Applicants who only completed Table 7 of the Application Bid Form will be informed that the Part A Assessment Stage is required and it will not become a Part B Bidder.

3.127 If a Part A Assessment Stage is not required, ComReg will inform Part B Bidders whether a Part B Assessment Stage is required:

- If a Part B Assessment Stage is required, ComReg will inform Part B Bidders of the scheduled start date of the Part B Assessment Stage with at least ten Working Days prior notice.
- If a Part B Assessment Stage is not required, Winning Bidders of Part B Lots will be informed of the scheduled date of the Assignment Stage.
- If any Bidder is the Winning Bidder for all Part B Lots no Assignment Stage is required.

3.128 If neither a Part A Assessment Stage nor a Part B Assessment Stage is required, ComReg will notify Winning Bidders of Part A and/or Part B Lots of the Winning Bids.

3.129 ComReg will not inform Bidders about the identity of other Bidders, the Bids made by other Bidders or the Eligibility of other Bidders. ComReg will not inform Bidders about unsuccessful Applicants who fail to become Bidders.

3.130 Applicants are reminded that, even if they are unsuccessful in becoming Bidders, they remain bound by the Award Rules on the release of Confidential Information until the public announcement on the final outcome of the Award Process by ComReg.

²⁷ Details of what constitutes a valid Application is set out in Section 3.3.

3.131 In order to qualify as a Part A Bidder an Applicant must provide the relevant documentation set out at paragraph 3.45 above.

3.4.2 Assessment of Applications

3.132 If an Applicant fails to ensure that ComReg receives the full Deposit for the Lots for which the Applicant has applied (in its Application Bid Form)²⁸ by the specified deadline date and time, ComReg, at its discretion, may decide that the Applicant's Application is not valid and that the Applicant is not eligible to participate as a Bidder in the Award Process. Alternatively, ComReg may provide a short additional period of time for the full amount of the required Deposit to be paid by the Applicant.

3.133 If an Applicant does not become a Bidder due to failing to make the required full Deposit, any Deposit which it has paid will be returned to it in accordance with the timeline for the return of Deposits to unsuccessful Applicants set out in Table 1 of Chapter 3 (subject to any extension of that timeline which shall not exceed the length of any grace period that may have been given to the Applicant to pay the balance of its incomplete Deposit).

3.134 If any aspect of an Application is found to be incomplete, unclear, or otherwise invalid, ComReg at its discretion shall decide what measures to adopt, taking into account the nature of the ambiguity, omission, or invalidity. Such measures may include seeking clarification or verification of information already provided, requesting further information from the Applicant, or deeming the Application concerned to be invalid.

3.135 If an Application is in some material manner incomplete, inaccurate, invalid, or untrue, ComReg reserves the right to directly and immediately exclude the Applicant concerned from becoming a Bidder i.e. ComReg may do so without providing the Applicant with an opportunity to clarify or correct its Application. Where an Applicant is declared unsuccessful in its Application due to deficiencies therein, the Applicant's Deposit will be returned to it in accordance with the timeline for the return of Deposits to unsuccessful Applicants set out in Table 1 of Chapter 3 above (subject to any additional grace period as may have been given to the Applicant to address the deficiencies in its Application).

3.136 If, having determined that an Applicant may participate in the Award Process as a Bidder, ComReg should subsequently become aware that the Bidder's original Application was incomplete, inaccurate, invalid, or untrue, ComReg may, at its discretion, allow the Bidder opportunity to clarify or correct the information already provided. If any material inaccuracy or untruth in an Application is identified, ComReg reserves the right to exclude the Bidder

²⁸ See Section 3.3.3.

directly without providing opportunity for the Bidder to clarify or correct the information already provided.

- 3.137 If such a Bidder cannot provide correction or clarification to ComReg's satisfaction, within the time limit specified by ComReg, that Bidder may be excluded from the Award Process with return of all, part, or none of its Deposit in accordance with the timeline set out in Table 1 of Chapter 3 above.
- 3.138 Where an Applicant is declared successful and becomes a Bidder, but its Application is subsequently found to have been in some material manner incomplete, inaccurate, invalid, or untrue, the Bidder's Deposit may or may not be returned, in whole or in part, depending on the nature and seriousness of the deficiency in its Application. Where part of a Deposit is returned, it will be returned within one week of the Bidder being informed that it is not eligible to further participate in the Award Process.
- 3.139 Applicants and Bidders have an on-going obligation to inform ComReg of any material changes to information provided in their Applications. If an Applicant or Bidder becomes aware of any material error, omission, or inaccuracy in its Application, the Applicant or Bidder shall inform ComReg of same as soon as reasonably possible. This obligation shall remain in effect for the duration of the Award Process and for the duration of any Licence granted on foot of the Award Process.
- 3.140 If a Bidder were to opt to not Bid during the Auction, its Initial Bid would still be included in the set of Bids considered in the determination of Winning Bidders and Prices.
- 3.141 Once Applications have been submitted they constitute binding offers to purchase the Lots applied for on the Application Form. However, an Applicant may withdraw its Application on or before **16:00 hours on Friday 25 October 2019** without forfeiture or partial forfeiture of Deposits. To withdraw an Application, Applicants should make an appointment using the telephone number provided in paragraph 3.116. ComReg will accept telephone calls to make an appointment for withdrawal of Applications between **16:00 and 17:00 hours on every Working Day from Monday 7 October until and including Thursday 24 October**.

3.5 Assessment Stage

3.5.1 General

Sequencing of the Part A and Part B Assessment Stages

- 3.142 The Part A Assessment Stage, if required, will take place before the Part B Assessment Stage. Following the completion of the Part A Assessment Stage,

ComReg will determine whether or not a Part B Assessment Stage is necessary, and how much Part B Spectrum will be available, on the basis of the Bids submitted by Part B Bidders in the Application Bid Form and the outcome of the Part A Award²⁹. If required, ComReg will then run the Part B Assessment Stage.

- 3.143 If required, the Part A Assessment Stage and the Part B Assessment Stage will each use an Auction process to determine the Winning Bidders and Prices for the relevant Lots. The Award Rules for the Part A Award and for the Part B Award will be identical and are set out below.

The Electronic Auction System

- 3.144 The Auctions will be run using an Electronic Auction System (EAS), which Bidders will use to submit Bids and which will enforce the applicable Award Rules.
- 3.145 Bidders will be able to access the EAS over the internet using a web-browser. There will be no onerous technical requirements for accessing the system.
- 3.146 Bidders are recommended to have back-up bidding facilities in place, including alternative computers and internet connections, to ensure that they can access the EAS reliably. ComReg is not able to provide specific advice on this matter, as this depends on the systems in use by any particular Bidder. Bidders should perform their own reviews of their bidding facilities prior to the start of the Auction.
- 3.147 Bidders may not submit Bids through any means other than the EAS, other than in exceptional circumstances and only then with the explicit permission of ComReg. In particular, before granting permission for Bids to be made through other means, ComReg must be satisfied that a Bidder was unable to access the EAS due to circumstances beyond its reasonable control. Procedures for the submission of Bids other than through the EAS are described in the “Bid Submission” section below. It is in Bidders’ own interests to submit Bids using the EAS as the EAS provides facilities for checking the compatibility of Bids with the Award Rules prior to submission of Bids.
- 3.148 Bidders have a limited number of Extension rights, which will automatically grant them additional time for submitting their Bids in the event that they do not make a submission before the scheduled end of a Round. The Extension rights provide Bidders with an opportunity to, for example, switch to back-up bidding facilities and to submit their Bids through the EAS in the event that

²⁹ Bidder(s) may be disqualified during the Part A Assessment Stage, thereby making available 40 Lots for the Part B Assessment Stage – see “Sanctions” in Section 3.3.4 of this document.

they experience technical difficulties and are unable to make their submission within the scheduled Round time.

3.149 In the event that a Bidder perceives an error in the functioning of the EAS, it must contact ComReg immediately using the method as described in paragraph 3.116. ComReg may, at its discretion, suspend or continue the Auction while investigating any such concerns. Further information on Extension rights is set out in subsection 3.5.8 below.

Bid Submission

3.150 All Bids must be submitted through the EAS unless a Bidder is prevented from doing so due to exceptional circumstances and ComReg gives its consent to that Bidder to use an alternative channel.

3.151 Submitting Bids in each Round involves a two-step process in which Bidders must first check their Bids and then confirm them:

- in the first step, Bidders enter their Bid(s) on the Bid form provided by the EAS for that Round, and submit that form to the EAS for checking; and
- in the second step, which is only available if the Bid(s) submitted in the first step are valid according to the Award Rules, Bidders can verify the Bid(s) checked by the EAS and confirm them (or alternatively revert to the Bid form if they wish to make any amendments).

3.152 A Bid submission is only valid if it is submitted in accordance with the process outlined above and received by the EAS before the deadline for Bid submission (taking into account any Extensions, as explained below).

3.153 Bidders should be aware that the transmission of Bid data from a client computer to the EAS will take a short, but material, time. Submissions can only be accepted if they are received by the EAS before the relevant deadline, regardless of the time at which they are sent from the Bidder's computer. Therefore, data transmission delays could lead to a Bidder missing the deadline for making a submission (which might trigger an Extension, or prevent the Bidder from making a submission in the Round). Bidders are responsible for making their own assessment of such risks and ensuring that they have access to the necessary infrastructure and equipment to allow reliable and timely submission.

3.154 Once a confirmation has been received by the EAS it is irrevocable. Upon receipt of a Valid Bid(s), the EAS will provide an acknowledgement page with details of the Bid(s) submitted. It is the responsibility of the Bidder to check this acknowledgement page, and to alert ComReg if technical problems are

suspected to have prevented successful submission. If a Bidder is unable to submit its Bid(s) using the EAS, then it should immediately notify ComReg using the method as described in paragraph 3.116, and seek permission to make a submission using an alternative channel. Such permission will usually not be given if ComReg has been notified of difficulties in making a submission after the deadline for submissions has expired. Where notification of such difficulties is received before the deadline for submissions, ComReg may, at its absolute discretion, grant permission to make submissions using an alternative channel for one or more Rounds, and will provide directions to the relevant Bidder on the process for doing this. Bidders must follow the express directions of ComReg for making submissions by alternative channels, such as by telephone, otherwise ComReg will consider that no submission has been made.

Communication with ComReg

- 3.155 The EAS will provide a one-way messaging system, which will be used as the primary method for ComReg to communicate with Bidders during the Auction.
- 3.156 Bidders may contact ComReg by telephone as described in paragraph 3.116, to report technical problems. In certain exceptional circumstances, Bidders may be given permission to submit Bid(s) through alternative means. Where ComReg has expressly granted permission to a Bidder, such a Bidder may submit Bids only by the means agreed with ComReg.
- 3.157 Contact details for ComReg, and guidelines on the submission of Bids in exceptional circumstances, will be made available to Bidders in advance of the Auction. ComReg may take steps to verify the authenticity of any communications from a Bidder using one-time passwords provided to the Bidder prior to the start of, or during, the Auction, or by other means as considered necessary by ComReg.

Exceptional Circumstances

- 3.158 If exceptional circumstances arise during any stage of the Assessment Stage, ComReg has the discretion to:
- postpone the scheduled start of a Round;
 - postpone the end of a Round in progress or the release of results of a Round;
 - postpone the scheduling of further Rounds;
 - cancel a Round that has been scheduled, but not yet started;

- cancel a Round that is either underway or which has finished but for which Round results have not yet been released, and re-schedule that Round;
- void one or more Rounds and the Bids made therein, and resume the Auction from an earlier Round;
- void all Bids received in the Auction, and either suspend the Auction or restart the Auction; and/or
- take any other steps or measures in running the Award Process which are appropriate and proportionate to the exceptional circumstances which have arisen and which further the objectives of the Award Process.

3.159 ComReg, at its absolute discretion, will determine whether a situation of exceptional circumstances has arisen. Exceptional circumstances could include, for example, widespread technical failure or material concern about collusion amongst some Bidders or any other breach of the Award Rules.

3.160 In the event that a Bidder is excluded from the Assessment Stage and some, or all, of its Bids so far are deemed invalid, ComReg would typically expect not to exercise the above powers. However, ComReg would consider all of the circumstances in determining whether to exercise its powers in this regard.

Applicant and Bidder Behaviour

3.161 Applicants and Bidders are reminded that the Award Process and Award Rules prohibits Applicants and Bidders from:

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

3.162 Such behaviours may also be illegal under EU and Irish competition law. These prohibitions apply throughout the Award Process. See Section 3.3.4 of this IM for the Award Rules relating to Bidder behaviour.

3.5.2 Information Made Available to Bidders at the Start of the Auction

3.163 Before the start of the Auction, ComReg will announce to all Bidders:

- the Round Price per Lot in the first Round;
- Aggregate Demand for the Lot(s), based on Initial Bids; and

- the provisional Round Schedule for at least the first day of the Auction (that is, the scheduled start time and end time of Rounds, assuming no Extension rights are used).

3.164 ComReg will also inform each Bidder of its own Eligibility for the first Round (as determined by its Initial Bid) and the number of Extension rights available to it during the Auction.

3.5.3 Round Schedule

3.165 A Round is a period of time set by ComReg within which Bidders submit their Bids. A Round may be extended by a Bidder exercising a right to use an Extension (see Section 3.5.8).

3.166 Rounds are scheduled at the discretion of ComReg.

3.167 There is no minimum or maximum length for a Round. However, ComReg does not anticipate scheduling Rounds with a duration of less than 30 minutes or more than two hours.

3.168 Rounds will be scheduled to run between **10.00 and 16.00 hours** on Working Days, assuming that no Extension rights are used. For the avoidance of doubt, no specific times for scheduled breaks (for example, lunch) will be set aside.

3.169 There will be a minimum of 30 minutes between Rounds.

3.170 Bidders will be notified of the schedule for a Round via the EAS at least 15 minutes in advance of the scheduled start time of the Round.

3.171 If no Extension rights are used, a Round will end at the scheduled end time. Under normal circumstances, a Round will not end before the scheduled end time, even if all Bidders have already made their Bid submissions for the Round.

3.172 On each Working Day prior to any day of the Auction, ComReg expects to notify Bidders of its provisional plans regarding the number of Rounds to be run the following Working Day. This should be used as guidance only and will not be binding on ComReg. Due to the provisions for Extensions and the potential for exceptional circumstances, it is not possible to guarantee the number and timing of Rounds in advance. Subject to the scheduling constraints set out above, the number of Rounds run on each day of the Assessment Stage and the timing of those Rounds will be at the discretion of ComReg.

3.5.4 Round Prices

3.173 For each Round, ComReg will specify a Round Price (per Lot).

- 3.174 For the first Round, the Round Price will be the Reserve Price per Lot plus a price increment.
- 3.175 In subsequent Rounds, the Round Price will be increased if the Closing Conditions set out in Section 3.5.9 are not met and a further Round is required.
- 3.176 The amount by which the Round Price is increased is set at ComReg's discretion and may vary across Rounds. However, the Round Price will not increase by more than 20% from one Round to the next.
- 3.177 It is not possible for the Round Price to fall during the Auction.
- 3.178 Round Prices will be in units of EUR 100.

3.5.5 Clock Bids

- 3.179 During each Round, a Bidder should specify the number of Lots it wishes to acquire at the prevailing Round Price – this is the Clock Bid submitted by the Bidder in the Round.
- 3.180 The number of Lots specified in a Bidder's Clock Bid is the Bidder's Activity in the Round.
- 3.181 A Bidder's Activity in a Round must not exceed its Eligibility for that Round, where the Bidder's Eligibility for a Round is determined as follows:
- In the first Round, the Bidder's Eligibility is equal to the number of Lots Bid for in the applicable Initial Bid.
 - In subsequent Rounds, the Bidder's Eligibility is equal to its Activity in the previous Round.
- 3.182 The Bid Amount associated with a Bidder's Clock Bid is the Round Price multiplied by the number of Lots specified in the Bidder's Clock Bid.
- 3.183 A Bidder may submit a Clock Bid containing zero Lots (with a Bid Amount of zero) – this is referred to as a Zero Bid. In this case, the Bidder's Eligibility for subsequent Rounds will be zero, and the Bidder will not be able to submit any further Bids in the Auction.

3.5.6 Exit Bids

- 3.184 If a Bidder's Activity in a Round is less than its Eligibility for the Round (i.e. if the Bidder submits a Clock Bid for fewer Lots than in the previous Round), then the Bidder may also submit one or more Exit Bids in addition to its Clock Bid.

3.185 An Exit Bid is a Bid for a number of Lots exceeding the Bidder's Activity in the Round and at most equal to the Bidder's Eligibility for the Round³⁰.

3.186 When submitting an Exit Bid, a Bidder will need to specify the number of Lots to be included in the Bid as well as the price per Lot that the Bidder is willing to pay. The price per Lot is set at the discretion of the Bidder, but must be:

- in units of EUR 100;
- strictly less than the current Round Price; and
- greater than or equal to the Round Price in the previous Round.

3.187 The Bid Amount associated with an Exit Bid is the number of Lots included in the Exit Bid multiplied by the corresponding price per Lot.

3.188 The formal definition of an Exit Bid is as follows:

- Let n_t be the number of Lots in the Bidder's Clock Bid in Round t and let p_t be the corresponding Round Price (per Lot);
- Where $n_t > n_{t+1}$, an Exit Bid is a price-quantity pair (p_e, n_e) with $p_{t+1} > p_e \geq p_t$ and $n_{t+1} < n_e \leq n_t$ which gives the maximum price p_e per lot at which the Bidder would request n_e Lots;
- If the Bidder submits multiple Exit Bids, these must be for different numbers of Lots. Therefore, if $n_t - n_{t+1} = m$, the Bidder may submit at most m Exit Bids.

Once submitted, Exit Bids cannot be amended or cancelled.

3.189 At the end of each Round, all Exit Bids submitted so far in the Auction (including those submitted in previous Rounds) will be taken into account when establishing whether the Closing Conditions have been met and (if so) for determining the Winning Bids.

3.5.7 Validity of Bids

3.190 All Bids submitted during the Auction (including Clock Bids and Exit Bids) in accordance with the Award Rules are Valid Bids. A Valid Bid represents a binding commitment to:

- buy the specified number of Lots at the specified Bid Amount; and

³⁰ Activity - in a given Round, the number of Lots associated with a Clock Bid submitted by the Bidder in that Round.

Eligibility - The extent of a Bidder's capacity to Bid for Lots in the current Round of the Auction. In the first Round, the Bidder's Eligibility is equal to the number of Lots specified in its applicable Initial Bid for the Auction. In subsequent Rounds, the Bidder's Eligibility is equal to its Activity in the previous Round.

- pay the appropriate Spectrum Usage Fee over the duration of the Licence.
- 3.191 In respect of Bidders other than Winning Bidders this commitment remains in force until ComReg announces the conclusion of the Award Process as specified in Section 3.8 of this document. In respect of Winning Bidders, this commitment remains in force in line with the terms and conditions as set out in this document.
- 3.192 A Bid will remain valid for the duration of the Award Process unless it is replaced by a Bid for the same number of Lots by the same Bidder for a higher Bid Amount in a subsequent Round, or it is voided by ComReg pursuant to the Award Rules.

Deposit Calls during the Bid Rounds

- 3.193 During the Bid Rounds, ComReg may give notice to one or more Bidders requiring them to increase their Deposits (a Deposit Call) to an amount specified by ComReg.
- 3.194 Where a Bidder's Deposit falls below 50% of its highest Bid made so far in the Auction, ComReg reserves the right to require the Bidder to increase its Deposit to at least 50% and not more than 100% of its highest Bid. ComReg will specify a deadline not less than three consecutive Working Days from giving notice by which time the required funds must have been received as cleared funds in the bank account specified by ComReg during the Award Process (details of which are provided in Annex 3).
- 3.195 ComReg reserves the right to not schedule Rounds in the period between giving notice of a Deposit Call to one or more Bidders and the deadline for the receipt of funds or the actual receipt of cleared funds, whichever occurs earlier.
- 3.196 In the event that a Bidder fails to meet the Deposit Call requirement, ComReg may, among other things, restrict its ability to make further Bids and/or declare some or all of its Bids already submitted as being incapable of becoming Winning Bids.
- 3.197 Where a Bidder wishes to confirm receipt of a Deposit, it should contact Mr. Patrick Bolton by letter using the method as set out in paragraphs 3.35 – 3.36 or by telephone using the telephone number provided in paragraph 3.116. In order to ensure the rules on confidentiality and Bidder behaviour are not breached a Bidder should not contact any other persons whether by telephone or letter or by any other means. ComReg will only receive such telephone calls between **16:00 – 17:00 hours** on every Working Day from **Friday 4 October 2019**.

3.5.8 Extension Rights

- 3.198 An Extension right allows a Bidder additional time in which to submit Bids during a Round. Each Bidder starts the Auction with two Extension rights.
- 3.199 Additional Extension rights may be granted either to all Bidders or to individual Bidders at the absolute discretion of ComReg. Additional Extension rights can only be granted in the period between Rounds. Additional Extension rights cannot be granted during a Round.
- 3.200 In the event that a Bidder with non-zero Eligibility for the Round and one or more remaining Extension rights fails to submit any Bids during a Round, the Round will automatically be extended for that particular Bidder, and one of its remaining Extension rights will be deducted. The EAS will automatically extend the time within which that Bidder can submit Bids by one hour from the scheduled end of the Round.
- 3.201 The Extension period will end one hour after the scheduled end of the Round, or once all Bidders who are using Extensions have successfully submitted their Bids, whichever is the earlier. Bidders may not use more than one extension in a Round.
- 3.202 Bidders that have already submitted a Bid (or Bids) during the Round cannot take any further action during the Extension period; they will be informed that the Round has been extended and should wait for the announcement that the Extension period has ended.
- 3.203 Bidders that have not submitted any Bids during a Round and have no Extension rights remaining will not be able to submit a Bid (or Bids) during the Extension period, and a Zero Bid will be entered automatically on their behalf. Where a Bidder fails to submit a Bid during the Extension period, a Zero Bid will be submitted on its behalf.
- 3.204 Extension rights are provided to Bidders in order to protect them from unforeseen circumstances that would prevent them from submitting Bids they would otherwise have submitted during a Round. Extensions are intended to provide a safeguard against the effects of technical failures, rather than to provide Bidders with extra time to consider their decisions.
- 3.205 Note that if a Bidder has exhausted its Extension rights and runs into technical difficulties during a Round, no additional Extension will be granted at that point. Any Bidder seeking additional Extensions, having exhausted its allowance, should contact ComReg prior to the start of the next Round, if any. ComReg will not grant additional Extensions unless it is satisfied that the Bidder has taken all reasonable steps to avoid missing the Round deadlines and that previous Extensions were triggered through circumstances beyond the Bidder's reasonable control. However, even where there is evidence to

support a case to grant additional Extensions to a Bidder or Bidders, ComReg retains its absolute discretion to extend a Round or to take alternative action in the event of significant technical difficulties.

3.206 A Bidder with Extensions available to it may notify ComReg, during a Round and via the telephone number in paragraph 3.116, that it is unable to submit a Bid during that Round and is likely to require an Extension period; notification is not mandatory, but would assist administration of the Auction.

3.5.9 Closing Conditions and Winner Determination

3.207 The Auction will apply a combinatorial closing rule.

3.208 A Feasible Combination of Bids is a set of Bids in which:

- the total number of Lots included in the Bids does not exceed the number of Lots available; and
- at most one Bid is included from each Bidder.

3.209 The value of a Feasible Combination of Bids is equal to the sum of the Bid Amounts for all Bids in the combination.

3.210 At the end of each Round, the Feasible Combination(s) of Bids with the greatest value will be determined, taking into account all Initial Bids, Clock Bids (including Zero Bids) and Exit Bids submitted so far in the Auction.

3.211 A Candidate Winning Combination of Bids is a value maximising Feasible Combination of Bids that includes a Bid from all Bidders (which may be a Zero Bid for any Bidder who has submitted a Zero Bid so far in the Auction).

3.212 If there is no Candidate Winning Combination of Bids identified at the end of a Round, a further Round will be run and the Round Price will be increased.

3.213 If there is at least one Candidate Winning Combination of Bids, the Auction will end and the combination of Winning Bids (the winning allocation) will be determined:

- If there is exactly one Candidate Winning Combination of Bids, this will be the winning allocation.
- If there are multiple Candidate Winning Combinations of Bids, the winning allocation will be the Candidate Winning Combination of Bids amongst these tied scenarios with the greatest number of Lots assigned.
- In the unlikely event that there are multiple Candidate Winning Combinations of Bids with the greatest number of Lots assigned, then the winning allocation will be selected at random from amongst these tied scenarios.

- Each Winning Bidder will be required to pay the Bid Amount associated with their Winning Bid.

3.214 These rules apply for both the Part A and the Part B Awards, but in practice are simpler for the Part A Award. In particular, the implications of the closing rules for the Part A Award are as follows:

- The Part A Award will end following a Round in which no more than one Clock Bid was submitted.
- If there is a Round in which exactly one Bidder submits a Clock Bid, that Bidder will be the Winning Bidder for the Part A Lot.
- If there is a Round in which no Bidders submit a Clock Bid (i.e. Aggregate Demand at the current Round Price is zero), then the Winning Bid will be the Bid with the highest Bid Amount submitted for the Part A Lot; this may be a Clock Bid or Exit Bid submitted in any Round of the Part A Award, or may be an Initial Bid if no further Bids are received in the Part A Award. If there are multiple Bids with the highest Bid Amount, one of these will be selected at random as the Winning Bid.

3.5.10 Information at the End of Rounds

3.215 After completion of a Round, each Bidder will be informed of:

- the Aggregate Demand for Lots in the Round, based on the Clock Bids submitted in the Round;
- the Clock Bid submitted by the Bidder during the Round;
- any Exit Bids submitted by the Bidder during the Round;
- the Bidder's Eligibility for the next Round; and
- the number of Extension rights the Bidder has remaining.

3.216 No information will be released about the Bids submitted by other Bidders during the Auction.

3.217 If a further Round is required, when the next Round is scheduled each Bidder will also be informed about:

- the scheduled start time, duration and end time for the Round;
- the Round Price per Lot in the Round;
- the Bidder's own Eligibility to bid in the Round; and
- the number of Extension rights remaining to the Bidder.

3.218 After completion of the final Round, each Bidder will be informed of the number of Lots they have won and (if applicable) the Price they will be required to pay for those Lots.

3.5.11 End of the Part A Assessment Stage

3.219 Following the completion of the Part A Assessment Stage, ComReg will determine the need for the Part B Assessment Stage based on the Application Bids and the outcome of the Part A Assessment Stage, as set out in Section 3.3.

3.220 If a Part B Assessment Stage is required, ComReg will inform all Part B Bidders (except those which only completed Table 7) of the scheduled start date of the Part B Assessment Stage. ComReg will circulate Bidder materials for accessing and using the EAS to Part B Bidders.

3.221 The Part B Assessment Stage will be run using an Auction in accordance with the rules set out above in Section 3.5.

3.222 If a Part B Assessment Stage is not required:

- if any Bidders are to be assigned Part B Lots (at the Reserve Price), those Bidders will be informed of the number of Part B Lots they will receive, and the Award Process will proceed directly to the Assignment Stage; otherwise
- if no Part B Lots are assigned, the Award Process will proceed to the Notification and Grant Stage.

3.5.12 End of the Part B Assessment Stage

3.223 Following completion of the Part B Assessment Stage, the Award Process will proceed to the Assignment Stage. If any Bidder is the Winning Bidder for all Part B Lots no Assignment Stage is required and the Award Process will proceed to the Notification and Grant Stage.

3.6 Assignment Stage – Part B Award Only

3.224 In the Assignment Stage, ComReg will establish the specific frequencies to be assigned to the Winning Bidders of the Part B Lots. The frequency assignments would be determined to ensure that:

- each Winning Bidder is assigned a contiguous block of spectrum corresponding to the number of Part B Lots it won in the Part B Award;
- if the winner of the Part A Lot has also won Part B Lots, the frequencies associated with the Part B Lots assigned to that Bidder will be contiguous to the Part A Lot (i.e. starting at 413 MHz / 423 MHz); and

- any unsold frequencies will form a contiguous block of spectrum at the top of the available frequencies (i.e. ending at 414 MHz / 424 MHz).

3.225 The process for determining specific frequencies to be assigned to Winning Bidders of the Part B Lots would be as follows:

- If the winner of the Part A Lot has also won Part B Lots, the frequencies associated with the Part B Lots assigned to that Bidder will automatically be positioned adjacent to the Part A Lot (i.e. starting at 413 MHz / 423 MHz);
- Other Winning Bidders will be ordered randomly through sequential random drawing by a designated member of staff;
- The order of the other Winning Bidders would determine the order in which the frequency assignments for those Winning Bidders are positioned within the band:
 - The first Winning Bidder would be assigned a contiguous block of spectrum (corresponding to the number of Part B Lots it won in the Part B Award) in the lowest remaining available frequencies, taking into account the frequencies assigned to the winner of the Part A Lot (if applicable);
 - Each Winning Bidder drawn subsequently would be assigned a contiguous block of spectrum (corresponding to the number of Part B Lots it won in the Part B Award) immediately above the frequencies assigned to the Winning Bidder drawn previously (i.e. in the lowest remaining available frequencies).
- Any unsold spectrum would consequently form a contiguous block at the top of the available frequencies.

3.226 The Assignment Stage will take place in the presence of an independent auditor to ensure that the ordering of Winning Bidders complies with the process outlined above.

3.227 Once ComReg has determined the frequency assignments, each Winning Bidder will be informed of the frequency(ies) that it will be assigned. This information will not be revealed to other Bidders at this stage.

3.6.1 Deposit Call

3.228 Following the completion of the Assessment Stage, and prior to notifying Winning Bidders of the outcome of the Assessment or Assignment Stage, ComReg reserves the right to notify any Winning Bidder that it must increase its Deposit by a specified amount. ComReg reserves the right to issue a

Deposit Call of up to 100% of the amount required to ensure that the Winning Bidder's Deposit is equal to its highest Bid.

- 3.229 If a Deposit Call is issued, ComReg will specify a time period of not less than three Working Days during which the notified Winning Bidder's additional Deposit funds must be received by ComReg as cleared funds in its bank account (as specified in Annex 3).
- 3.230 ComReg will not inform Winning Bidders of the result of the Assessment Stage or Assignment Stage in the time period between the date of issue of a Deposit Call and the specified date by which additional cleared Deposit funds must be received. However, ComReg may inform Winning Bidders of the result of the Assessment Stage or Assignment Stage prior to the deadline for the receipt of additional cleared Deposit funds, if all such funds have been received and cleared in advance of that deadline.
- 3.231 If any Winning Bidder who is the subject of a Deposit Call does not provide the required additional, cleared Deposit funds by the set deadline, ComReg at its discretion may void the Winning Bidder's Bids (i.e. set all of them at zero Euro (€0.00)).
- 3.232 Where a Bidder wishes to confirm receipt of a Deposit, it should contact Mr. Patrick Bolton by letter using the using the method as set out in paragraphs 3.35 – 3.36 or by telephone using the telephone number provided in paragraph 3.116. In order to ensure the rules on confidentiality and Bidder behaviour are not breached a Bidder should not contact any other persons whether by telephone or letter or any other means. ComReg will only receive such telephone calls between **16:00 – 17:00 hours** on every Working Day from **Friday 4 October 2019**. No other method of communication should be used to confirm receipt of Deposits.

3.7 Notification and Grant Stage

- 3.233 Once ComReg has determined the Prices for Winning Bids to be paid, ComReg will notify each Bidder in writing as to whether it has been successful in acquiring Lots in the Award Process.
- 3.234 ComReg will return Deposits to Bidders who failed to win any Lots (less any Deposit forfeiture imposed under the Award Rules) within approximately two weeks of this notification.
- 3.235 ComReg will notify each Winning Bidder of its entitlement to apply for a Licence, including the applicable SAF.
- 3.236 The SAF to be paid by each Winning Bidder, prior to the granting of a Licence, will be equal to the Price determined in the Assessment Stage.

- 3.237 The notification to the Winning Bidder will specify the date for payment of the SAF and first SUF (the “Payment Deadline”). The Payment Deadline will be approximately two weeks after the release of the results of the Assignment Stage to Bidders. Payment of each Winning Bidder’s SAF and first SUF is a pre-requisite to that Winning Bidder being entitled to apply for a Licence.
- 3.238 If a Winning Bidder’s SAF exceeds its Deposit, the balance of funds due must be received by ComReg as cleared funds in its specified bank account by no later than **23:59 hours on the Payment Deadline**. If a Winning Bidder’s SAF, is less than its Deposit, the relevant amount of the Deposit will be returned to the Winning Bidder by the Payment Deadline (less any Deposit forfeiture imposed under the Award Rules).
- 3.239 The notifications³¹ to Bidders under Section 3.7 will specify that each Winning Bidder must comply with the terms and conditions of any Licence granted to it (as detailed in the Regulations and as generally described in Section 2.2 of this IM). In that regard, the notification to each Winning Bidder, relating to the Lots which that Winning Bidder won in the Award Process and the Licence which may be granted to that Winning Bidder if certain prerequisites are met, will specify the following:
- the Lots to be included in the Licence (being the Lots won by the Winning Bidder in the Award Process);
 - the expected Commencement Date of the Licence;
 - the expiry date of the Licence;
 - that the Winning Bidder must pay the applicable SUF for the Licence before being granted the Licence; and
 - the expected date on which ComReg will issue an invoice to the Winning Bidder in respect of the applicable SUF for its Licence.
- 3.240 ComReg will grant a Licence to any Winning Bidder who has paid its SAF and first SUF by the Payment Deadline and complied with the above prerequisites.
- 3.241 ComReg, at its discretion, may extend the time period for Winning Bidders to comply with all of the prerequisites to being granted a Licence, as set out above. If a Winning Bidder does not comply with all of the prerequisites, including the payment of the SAF and first SUF, it will not be granted a Licence and it may forfeit its Deposit (without prejudice to ComReg’s entitlement to recover the full amount due in respect of all Lots won as a simple contract debt).

³¹ This notification will be sent to all Winning Bidders.

3.242 Once a Licence has been granted to a Winning Bidder, ComReg may publish the text of the Licence on its website and may publish any subsequent amendments to said Licence, as may be made in due course.

3.8 End of the Award Process

3.243 Once ComReg has determined the Winning Bids and frequency assignments to be assigned to Winning Bidders, the results of the Award Process will be made public.

3.244 The following information will be released:

- the identities of Winning Bidders;
- the frequency(ies) awarded to each Winning Bidder; and
- the fee to be paid by each Winning Bidder.

Chapter 4

4 Legal Terms and Conditions

4.1 Important Notice

- 4.1 This IM is solely for the purpose of assisting Interested Parties in deciding whether to participate in the Award Process, in accordance with the terms of this IM, and to assist Interested Parties and their agents in preparing for and understanding the Award Process. This IM may not be used for any other purpose and, when using it for its stated purpose, Interested Parties are strictly subject to the terms and conditions set out in this IM.
- 4.2 In this IM an “**Interested Party**” shall have the meaning ascribed to this expression in the Glossary to this IM.
- 4.3 To the extent permitted by law, no representation or warranty or undertaking (express or implied) is or will be made by ComReg or its personnel or agents and no liability or responsibility is or will be accepted by ComReg or its personnel or agents as to:
- i. the adequacy, accuracy or completeness of the information, opinions or statements (or the basis on which they are premised) contained in this IM or in any of the documents referred to herein;
 - ii. any omissions, errors or misstatements contained in this IM or in any documents referred to herein;
 - iii. any software used to implement the Award Process; and
 - iv. the contents of any written or oral information made available by ComReg or its personnel or agents to Interested Parties or any third party relating to the Award Process.
- 4.4 To the extent permitted by law, any liability and/or loss of any nature arising from this IM and its use by Interested Parties is expressly disclaimed.
- 4.5 To the extent permitted by law, Interested Parties shall not be entitled to rely on the contents of this IM to argue that they have rights or expectations, pursuant to legitimate expectation, estoppel or other related legal arguments, that:
- i. ComReg will not exercise any of its rights reserved in Section 4.2.6 of this chapter;
 - ii. they will be awarded any spectrum at the end of the Award Process;

- iii. bidding in any particular manner will, of itself, guarantee success in the Award Process;
 - iv. ComReg will, during the term of any Licence granted pursuant to the Award Process, modify the terms of such Licence, or the Regulations affecting such Licence, in any manner and, without prejudice to the generality of the foregoing, that ComReg will permit the use of any particular new technologies in the spectrum rights of use licensed in the Award Process; or
 - v. ComReg will reassign rights of use of spectrum licensed pursuant to the Award Process in any particular way at the termination of any Licences granted pursuant to the Award Process.
- 4.6 While ComReg, its personnel and agents intend to implement the Award Process, ComReg, its personnel and agents give no indication or commitment and make no statements as to the possible outcomes of this Award Process.
- 4.7 In accessing this IM, Interested Parties acknowledge that they will be solely responsible for their own assessment of any matter connected with the Award Process to which the IM relates. Interested Parties are responsible for forming their own views, deciding if they will partake in the Award Process, completing the relevant Application Forms and calculating any Bids.
- 4.8 All dates in this IM are, unless specifically stated to the contrary, target or indicative dates only and may be subject to change at the sole discretion of ComReg acting in line with its statutory functions, objectives and duties.
- 4.9 Whilst the information in this IM has been provided in good faith, it does not purport to be comprehensive nor to have been independently verified. Interested Parties should form their own views. ComReg reserves the right to amend this IM and any information or documents contained or referred to herein in accordance with paragraph 4.31 of this Chapter.
- 4.10 Nothing in this IM is, or should be relied upon as, a promise or representation as to ComReg's ultimate decision in relation to the award of a Licence or Licences. ComReg reserves the right to suspend or not to proceed with the Award Process or any part thereof and may terminate the Award Process or any part thereof at any time and, in such event, ComReg shall not be liable, howsoever, to any Interested Party save for ComReg's obligation to return Deposits in certain circumstances. ComReg also reserves the right, in accordance with law, to change any procedure in relation to the Award Process. ComReg reserves the right to reject any and all Applications received as part of the Award Process or not to select any Applicant for the grant of a Licence. It is recommended that Interested Parties seek their own financial, legal and technical advice at their own cost in relation to the Award Process.

The publication of this IM or any information made available in connection with the Award Process does not constitute nor is to be taken as constituting the giving of financial, legal, technical or investment advice by ComReg, its personnel or agents.

- 4.11 Any conflict of interest or potential conflict of interest – including but not limited to any conflict arising under the rules set out in Section 3.3.4 of this IM – must be disclosed to ComReg by any Interested Party or by any prospective or actual Bidder as soon as such conflict of interest or potential conflict of interest becomes apparent. The appropriate course of action to be taken in such event shall be decided upon by ComReg, at its discretion acting in line with its statutory functions, objectives and duties.
- 4.12 This IM should be read and construed in accordance with the previous documentation issued by ComReg as part of this process including:
- Consultation 17/67;
 - Response to Consultation 17/105;
 - Further Consultation 18/92;
 - Response to Consultation and draft Decision 19/23; and
 - Response to Consultation and Decision 19/69.

along with the associated consultants' reports, submissions to the consultation process and other relevant ComReg documents which are available on ComReg's website (the "Consultation Process Documents"). Noting that the consultation process has been comprehensive and the views of ComReg and the respondents have evolved over time, in the event of any conflict between the views expressed in any of the Consultation Process Documents the view expressed in the later document shall take precedence. Where any draft document, for instance a draft statutory instrument, draft decision or draft IM has been supplanted by a finalised document, the draft document should be discounted entirely. In the event of any conflict or inconsistency between the Consultation Process Documents and this IM, this IM shall take precedence.

- 4.13 No legal obligations on the part of ComReg to grant any Licenses will arise unless and until the granting and commencement of a Licence or Licences by ComReg following the completion of the Award Process.
- 4.14 The legal and contractual obligations described in this Chapter of the IM are imposed on Interested Parties who are furnished with or who download this IM and ComReg reserves the right to enforce such obligations. Copyright (and any other intellectual property rights) in this IM vest and remain in ComReg and its licensors and recipients of this document, including Interested Parties, shall not use or copy this IM other than in pursuit of the purposes described in

paragraph 4.1 above, without the permission of ComReg. Applicants who submit Applications to enter the Award Process shall be obliged to express their acceptance to the provisions of this Chapter as part of the submitting of its Application (See Section 3.3 and Annex 3).

- 4.15 This IM and all matters arising out of or in connection with or in any way related to this IM shall be governed and construed in accordance with the laws of Ireland and shall be subject to, and Interested Parties hereby expressly submit to, the exclusive jurisdiction of the Irish courts.

4.2 Additional Conditions

4.2.1 Open applications

- 4.16 All Applications (including Applications which do not ultimately become qualifying Applications) by Applicants comprise offers which must remain open and valid for six (6) months from the date of submission with the exception that an Applicant may withdraw its Application on or before **16:00 on Friday 25 October 2019** using the method as described in paragraph 3.141. Applications are contractually binding offers and the submission of an Application shall mean the Applicant unconditionally offers to agree to:
- i. the provisions of this Chapter;
 - ii. the Applicant Declaration which forms part of the Application (see Annex 3); and
 - iii. the Award Rules described in Section 4.2.3 below.
- 4.17 Offers shall be deemed to be accepted (meaning that an agreement covering (i), (ii) and (iii) above has been formed between the Applicant and ComReg) once they are submitted to ComReg in accordance with the IM and an acknowledgment of receipt has been issued by ComReg even if they subsequently do not become qualifying Applications.
- 4.18 All Applications will be assessed in accordance with Section 3.4 of this IM.
- 4.19 For the avoidance of doubt, the contract described in this Section 4.2.1 is in addition to and not in substitution for the contract described in paragraph 4.14 above, which binds all parties in receipt of this IM to the provisions of this Chapter. In the event that an Applicant withdraws its Application on or before **16:00 hours on Friday 25 October 2019** using the method as described in paragraph 3.141, such Applicants will remain bound by the contract described in paragraph 4.14.

4.2.2 Canvassing

- 4.20 Interested Parties must not canvass directly or indirectly any staff or the Commissioners of ComReg or any person associated in any way with the Award Process. Failure to comply with this requirement may result in an Application being deemed invalid or disqualification from the Award Process. This does not restrict an Applicant from making any representations through the communications channels specified in this IM.

4.2.3 Award Rules / Bidder Behaviour / Improper Influence

- 4.21 The Award Process and Award Rules described in this IM and its Annexes shall form part of the agreement between ComReg and Applicants described in Section 4.2.1 above and by submitting an Application, the Applicant agrees to be bound by and to comply with the Award Rules. Without prejudice to the detailed Award Rules around Bidder behaviour and for the avoidance of doubt, any attempt by Interested Parties to improperly influence, in any way, the Award Process, may result in the disqualification of that/those Interested Parties or, where the party engaging in such behaviour is an agent, that agent's principal. Non-exhaustive examples of such improper influence are collusion, price fixing, bid rigging, bid rotation, market division or breach of Award Process confidentiality. If an Applicant or Bidder becomes aware of a breach of any Award Rules, it shall notify ComReg immediately and without delay regardless of whether that breach arose through the actions of that Applicant or Bidder or any other entity referred to in this IM.

4.2.4 Publicity / Information Disclosure

- 4.22 No publicity whatsoever regarding this IM and/or Award Process is permitted until ComReg announces the outcome of the Award Process as described in Section 3.8 unless and until ComReg has consented in writing, at its discretion, to the relevant communication. For the avoidance of doubt, this publicity prohibition shall prevent Interested Parties and/or their agents from making any public statements or statements likely to be made public whatsoever concerning the Award Process and/or this IM before ComReg announces the outcome of the Award Process as per Section 3.8 of this IM.
- 4.23 ComReg may issue such communications and generate such publicity in relation to the Award Process as it considers appropriate and without notice to Interested Parties. ComReg, subject to its guidelines on the treatment of confidential information³², in particular, has the right to publicise or otherwise disclose any information regarding the Award Process, the identity of

³² ComReg Guidelines on the treatment of confidential information, Document 05/24.

Applicants (including the identity of their members, sub-contractors and agents), successful Bidders or the granting of related Licence or Licences at any time.

- 4.24 Before, during or after the Award Process ComReg may receive a request made pursuant to applicable law (including the Freedom of Information Act 2014) to disclose particular information. ComReg is not liable or responsible under any circumstances for any losses, claims or damages of any kind incurred as a result of the good faith disclosure of any information purportedly pursuant to law, which occurs before, during or after the Award Process. It is the sole responsibility of a Bidder/Applicant/Interested Party to determine if any of the information it supplies in the course of the Award Process should not be disclosed because of its sensitivity.

4.2.5 Errors

- 4.25 If Interested Parties discover any error or omission or lack of clarity in this IM, such Interested Parties must immediately notify ComReg in writing of such error using the method described in paragraphs 3.35 – 3.36 of this IM, omission or lack of clarity which will be resolved by ComReg in such manner as it considers appropriate.

4.2.6 No Warranty and Termination

- 4.26 The publication of this IM does not warrant or imply that any Interested Party will be awarded a Licence or Licences.
- 4.27 ComReg will act at all times to a standard expected of a public body and in line with its statutory functions, objectives and duties. ComReg reserves the right, for any reason whatsoever at its discretion:
- to reject Applications which do not comply with the Award Rules;
 - not to proceed with any part of the Award Process described in this IM;
 - not to provide an Interested Party with any additional information;
 - not to implement any arrangement contemplated by this IM;
 - to withdraw from any discussions or consultation which ComReg might engage or have engaged in;
 - to suspend the Award Process at any time;
 - not to award any Licence or Licences;
 - to procure the award of a Licence or Licences by alternative means; and/or

- to terminate the Award Process at any time.

4.2.7 Own Costs

- 4.28 Each Interested Party shall be fully responsible for the entirety of all expenses and/or costs it incurs in the preparation or submission of an Application or in participating in the Award Process. Save as otherwise expressly stated in this IM, ComReg is not responsible for and will not pay for any expense or cost incurred or loss suffered by an Interested Party in the preparation or submission of its Application, its participation in the Award Process or otherwise. Further, ComReg is not responsible for any travel or accommodation costs incurred by Interested Parties unless previously agreed in writing by ComReg.
- 4.29 This applies in all cases, including if the Award Process is suspended or terminated for any reason whatsoever.

4.2.8 Waiver

- 4.30 The failure or neglect by ComReg to enforce any provision of the IM is not (and will not be deemed to be) a waiver of that provision and does not prejudice ComReg's right to take subsequent action in respect of such provision.

4.2.9 Amendments

- 4.31 ComReg reserves, at its discretion, the right, at any time until the conclusion or termination of the Award Process, to amend or modify this IM 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.

4.2.10 Conclusion of Process

- 4.32 The conclusion of the Award Process as set out in Section 3.8, shall be without prejudice to the accrued rights, and obligations of ComReg and Interested Parties pursuant to this Chapter. The provisions of this IM shall continue to bind ComReg and/or Interested Parties, to the extent that each of these provisions has become applicable to an Interested Party during the Award Process, after the conclusion of the Award Process.

Additional continuing obligations are imposed on Applicants pursuant to the contract formed by Section 4.2.1 of this Chapter.

Annex: 1 Glossary

A1.1 Definitions

- A 1.1 The definitions in this glossary shall apply to this IM as a whole save that they shall not apply to the draft Regulations in Annex 2.
- A 1.2 Where a term in this glossary is defined by reference to a definition in a section or paragraph and an explanation of that term is provided in this glossary, the latter explanation is for convenience only and reference should be made to the appropriate part of the document for the definitive meaning of that term in its appropriate context.
- A 1.3 Any reference to any provision of any legislation shall include any modification re-enactment or Extension thereof.
- A 1.4 Any reference to an Interested Party shall include that Interested Party's successors and assigns as defined in this Annex.
- A 1.5 The headings contained in this IM are inserted for convenience of reference only and shall not in any way form part of or affect or be taken into account in the construction or interpretation of any provision of this IM or the Annexes or Schedules hereto.
- A 1.6 Terms defined in this IM shall, unless the context otherwise requires or admits, have the meaning set out below:

400 MHz Band	The part of the radio frequency spectrum consisting of the 410 – 414 MHz paired with 420 – 424 MHz.
400 MHz Band Licence	Means a licence in the form set out in Schedule 1 to keep and have possession of Apparatus in the State in accordance with and subject to the terms and conditions contained in the Licence and Schedule 2.
2002 Act	The Communications Regulation Act 2002 (No. 20 of 2002), as amended ³³ .

³³ Amendments include but are not limited to those effected by the Communications Regulation (Amendment) Act 2007 and the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010.

Act of 1926	The Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended.
Activity	In a given Round, the number of Lots associated with a Clock Bid submitted by the Bidder in that Round.
Aggregate Demand	The total demand expressed by Bidders for the available Lots.
Apparatus	“Apparatus” for wireless telegraphy as defined in Section 2 of the Act of 1926 for terrestrial systems that utilise radio frequencies in the 400 MHz Band.
Applicant	An entity that submits an Application to ComReg to be assigned at least one of the Lots being made available in the Award Process.
Applicant Declaration	Part 2 of the Application Form.
Application	The Application to participate in the Award Process made by an Applicant. A valid Application is a binding commitment to pay up to the highest value Bid Amount submitted for any Bid specified on the Applicant’s Application Bid Form.
Application Bid(s)	The Bids specified in an Applicant’s Application Bid Form.
Application Bid Form	Part 3 of the Application Form.
Application Date	The date by which Interested Parties must submit an Application to participate in the Award Process together with the required monetary Deposit.
Application Form	The Application Form, as set out in Annex 3 of this Document, to be delivered as part of an Application consisting of: <ul style="list-style-type: none"> • Part 1: Administrative Information • Part 2: Applicant Declaration • Part 3: Application Bid Form

	<ul style="list-style-type: none"> • Part 4: Utility Network Details • any supporting documentation required to be submitted as part of an Application in accordance with the IM.
Application Stage	The stage of the Award Process described in Section 3.3 of this IM, which runs from the day on which the IM is published up to and including the Application Date.
Assessment Stage	Includes “Part A Assessment Stage” and “Part B Assessment Stage”, as appropriate.
Assignment Stage	The stage of the Award Process where Winning Bidders of Part B Spectrum are assigned specific Lots in accordance with the number of frequency-generic Lots they have won.
Auction	The mechanism within each of the Part A and Part B Assessment Stages used to determine Winning Bidders and Winning Bids.
Authorisation Regulations	The European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations, 2011 (S.I. No. 335 of 2011).
Authorised Agent	A person who the Applicant has notified ComReg is entitled to bind an Applicant contractually in relation to the Award Process.
Award	Means the competitive award procedure used by the Commission for the purpose of granting individual rights of use for radio frequencies in the 400 MHz Band.
Award Process	The overall process through which it is intended that rights of use of the Award Spectrum will be granted in the event that at least one Applicant submits a valid Application, which by definition must include a Valid Bid.
Award Rules	Rules and procedures relating to the Award Process, as presented in this Information Memorandum and its Annexes.

Award Spectrum	<p>The 400 MHz Band in respect of which rights of use are being made available in the Award Process as set out in Chapter 3.</p> <p>The Award Spectrum consists of Part A Lot which is one 2 x 3 MHz Lot (410 – 413 MHz / 420 – 423 MHz) for the provision of wireless connectivity for Smart Grid services and Part B Spectrum which consists of ten 2 x 100 kHz separate Lots (413 – 414 MHz / 423 – 424 MHz).</p>
Base Station	Apparatus connected to a network, which provides a Radiocommunication Service using the 400 MHz Band.
Bid	A binding offer to buy a number of Lots at a price not exceeding a specific monetary amount (the Bid Amount).
Bid Amount	The monetary amount associated with an offer made by a Bidder for a specified Package of Lots.
Bidder	An Applicant that submitted a valid Application in the Application Stage that was approved by ComReg in the Qualification Stage, qualifying them to be allocated Lots in the Award Process.
Candidate Winning Combination of Bids	A value maximising Feasible Combination of Bids that includes a Bid from all Bidders (which may be a Zero Bid for any Bidder who has submitted a Zero Bid so far in the Auction).
Clock Bid	A Bid submitted by a Bidder during a Round that specifies the number of Lots the Bidder wishes to acquire at the prevailing Round Price.
Closing Conditions	As specified in Section 3.5.9.
Commencement Date	Means the date specified in a Licence upon which the Licence comes into effect.
ComReg's Nominated Bank Account	As specified in the Application Bid Form.

Communications Regulation Act 2002	Communications Regulation Act 2002 (No. 20 of 2002), as amended ³⁴ .
Confidential Information	Details of what may constitute Confidential Information for the purposes of this Award Process are provided in subsection Section 3.3.4 of the IM.
CPI	Consumer Price Index published from time to time by the Central Statistics Office.
CPI Adjustment	Means a negative or positive adjustment to a Spectrum Usage Fee, calculated using the CPI according to the methodology set out in the Information Memorandum.
CSO	Central Statistics Office of Ireland or its successor.
Deposit	A monetary amount submitted by an Applicant as part of its Application to be allocated Lots in the Award Process. For an Application to be valid, the amount of an Applicant's Deposit must, at a minimum, be equal to the highest Bid Amount specified by the Applicant in its Application Bid Form.
Deposit Call	A notice given by ComReg to one or more Bidders that they need to increase their Deposits as described in this Information Memorandum.
Equivalent Isotropically Radiated Power (EIRP)	Means the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.
Electronic Auction System (EAS)	The system used for running the Auction. Specifically, this will be used by Bidders to check and submit Bids during the Assessment Stage (where required) and the Assignment Stage of the Auction (both except in exceptional circumstances).

³⁴ Amendments include but are not limited to those effected by the Communications Regulation (Amendment) act 2007 and the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010.

Eligibility	<p>The extent of a Bidder's capacity to Bid for Lots in the current Round of the Auction.</p> <p>In the first Round, the Bidder's Eligibility is equal to the number of Lots specified in its applicable Initial Bid for the Auction.</p> <p>In subsequent Rounds, the Bidder's Eligibility is equal to its Activity in the previous Round.</p>
Exit Bid	<p>A Bid for a number of Lots exceeding the Bidder's Activity in the Round and at most equal to the Bidder's Eligibility for the Round.</p>
Extension	<p>An extension of the deadline for submission of a Bid in the Round by up to one hour for the Bidder (or Bidders) that have utilised an Extension right in the Round. An Extension right of a Bidder will be exercised automatically in a Round if the Bidder has at least one Extension right remaining and has not submitted a Bid by the scheduled end time of the Round. Each Bidder starts the Auction with two Extension rights.</p>
FDD	<p>Frequency Division Duplex describes a full-duplex communications link that uses two different radio frequencies for transmitter and receiver operation. The transmit direction and receive direction frequencies are separated by a defined frequency offset.</p>
Feasible Combination of Bids	<p>A Feasible Combination of Bids is a set of Bids in which:</p> <ul style="list-style-type: none"> • the total number of Lots included in the Bids does not exceed the number of Lots available; and • at most one Bid is included from each Bidder. <p>The value of a Feasible Combination of Bids is equal to the sum of the Bid Amounts for all Bids in the combination.</p>
Framework Regulations	<p>European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I No. 333 of 2011).</p>

Harmful Interference	Bears the meaning ascribed to it in the Framework Regulations.
Hertz	Unit of Frequency.
ICNIRP	International Commission for Non-Ionising Radiation Protection – www.icnirp.org
Initial Bid	<p>A Part A Bidder's Initial Bid for the Part A Assessment Stage is a Bid for the Part A Lot with a Bid Amount equal to the Reserve Price for the Part A Lot, as specified in Table 3 of the Bidder's Application Bid Form.</p> <p>A Part B Bidder's Initial Bid for the Part B Assessment Stage is one of the Bidder's Application Bids for the Part B Lots specified in Table 4 and/or Table 5 (Network Utility Operators) or in Table 6 and/or Table 7 (other Applicants) of the Bidder's Application Bid Form. An Initial Bid for the Part B Assessment Stage is a Bid for a number of Part B Lots with a Bid Amount equal to the sum of the Reserve Prices for those Lots. The Application Bid selected as the Bidder's Initial Bid for the Part B Assessment Stage is dependent on the outcome of the Part A Award.</p> <p>The process for determining Initial Bids is described in Section 3.3.2.</p>
IM	This Information Memorandum including all of the Annexes and Schedules thereto.
Insider	Shall have the meaning ascribed to it in paragraph 3.81.
Interested Party	<p>Includes, to the extent that the context requires or admits, any of the following:</p> <ul style="list-style-type: none"> (i) a respondent to Consultation Document 17/67, 18/92, 19/23, 19/56; (ii) a prospective Bidder; (iii) an Applicant; (iv) a Bidder; or an agent of any of the foregoing.

kHz	One kiloHertz (kHz) is equal to 1,000 Hertz (Hz).
Licence	Means a Non-exclusive licence granted under section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in the Regulations to keep and have possession of Apparatus.
Licensee	Means the holder of a Licence.
Lot	A 2 × 3 MHz block of spectrum or a 2 × 100 kHz block of spectrum in the 400 MHz Band, as appropriate.
MHz	Megahertz (1,000,000 Hertz).
Minister	Minister for Communications, Climate Action and Environment.
Network Utility Operator	<p>Means:</p> <ul style="list-style-type: none"> • in the electricity sector - <ul style="list-style-type: none"> (1) <i>A person that has been granted a licence by the Commission for Regulation of Utilities under section 14 of the Electricity Regulation Act 1999, as amended:</i> <ul style="list-style-type: none"> - <i>to discharge the functions of the transmission system owner;</i> - <i>to discharge the functions of the transmission system operator;</i> - <i>to discharge the functions of distribution System Owner;</i> - <i>to discharge the functions of the distribution system operator.</i> • in the gas sector – <ul style="list-style-type: none"> (2) <i>the company, or a subsidiary of the company, the functions of which are laid out in section 8 of the Gas Act 1976 and in section 11 of the Gas (Interim) (Regulation) Act 2002; and</i> • in the water sector –

	<i>(3) The private company limited by shares formed by virtue of section 4 of the Water Services Act 2013 as amended.</i>
Non-exclusive	In relation to a Licence means that the Commission is not precluded from authorising the keeping and having possession by persons other than the Licensee, on a Non-Interference and Non-Protected Basis, of apparatus for wireless telegraphy in the radio frequency spectrum specified in the Licence.
Non-Interference and Non-Protected Basis	The use of Apparatus is subject to no Harmful Interference being caused to any Radiocommunication Service, and that no claim may be made for the protection of Apparatus used on this basis against Harmful Interference originating from Radiocommunication Services.
Notification and Grant Stage	The stage of the Award Process during which Deposits (minus any applicable SAF or portion of Deposits forfeited for breaches of the Award Rules) are returned to Bidders and 400 MHz Band Licences are granted to Winning Bidders.
Package	A selection of one or more Lots: <ul style="list-style-type: none"> • Specified in a Bidder's Application Form; and • Bid for in one or more of the Bid Rounds.
Payment Deadline	The last day upon which Winning Bidders can increase their Deposits to the level of their SAF in order to apply for a Licence for the Lots assigned to them within the Award Process.
Part A Assessment Stage	The stage of the Award Process used to determine the Winning Bidder of the Part A Lot, and the Price that it will be required to pay, in the event that there is more than one Part A Bidder.
Part B Assessment Stage	The stage of the Award Process used to determine the Winning Bidder(s) of the Part B Lots, and the Price(s) that Winning Bidder(s) will be required to pay in the event that

	there is excess demand for Part B Lots based on the Part B Bidders' Initial Bids.
Part A Award	Consists of one 2 × 3 MHz Lot (410 – 413 MHz / 420 – 423 MHz) for the provision of wireless connectivity for Smart Grid services. A Winning Bidder of the Part A Award can only be a Network Utility Operator for the provision of wireless connectivity for Smart Grid services.
Part A Bidder	A Bidder that has submitted a valid Application for the Part A Lot.
Part A Lot	Consists of a single 2 × 3 MHz Lot (410 – 413 MHz / 420 – 423 MHz) for the provision of wireless connectivity for Smart Grid.
Part B Award	Consists of ten 2 × 100 kHz Lots (413 – 414 MHz / 423 – 424 MHz). If there is no Winning Bidder for Part A, all available spectrum will be included in the Part B Award as 40 Lots of 2 × 100 kHz.
Part B Lot	A 2 × 100 kHz block of spectrum in the 400 MHz Band as appropriate.
Part B Bidder	A Bidder that has submitted a valid Application for one or more Part B Lots.
Part B Spectrum	Consists of ten 2 × 100 kHz Lots (413 – 414 MHz / 423 – 424 MHz) unless there is no Winning Bidder of the Part A Lot, in which case this consists of 40 Lots of 2 × 100 kHz (410 – 414 MHz / 420 – 424 MHz).
Price	The price to be paid by a Winning Bidder for the Package of Lots assigned to it in the Assessment Stage.
Qualification Stage	A stage of the Award Process during which ComReg assesses the Applications submitted before the Application Date, evaluates which Applications are valid, and determines

	which Applicants qualify to become Bidders in the Award Process.
Radiocommunication Service	A service as defined in the Radio Regulations of the International Telecommunication Union involving the transmission, emission or reception of radio waves for specific telecommunication purposes.
Regulations	Regulations intended to be made by ComReg, subject to obtaining the prior consent of the Minister, in the form of the draft Regulations, as may be amended prior to enactment. See Annex 2 of this document.
Reserve Price	The minimum Bid Amount required in a Bid for an individual Lot for such a Lot to be assigned to a Bidder.
Round	A Round is a period of time set by ComReg within which Bidders submit their Bids. A Round may be extended by a Bidder exercising a right to use an Extension.
Round Price	The price per Lot in a given Round.
Round Schedule	The scheduled start time and end time of Rounds.
SI	Statutory Instrument.
Smart Grid	The advanced delivery systems for utility services (electricity, gas and water) from sources of generation and production to key elements in the grid networks and includes all supervisory and control necessary for their effective management. For the avoidance of doubt, this definition does not mean the use of smart metering, which consists of devices located at premises that record energy, water and gas usage and provide two-way electronic communication between consumers and the grid.
Specific Regulations	Specific Regulations has the same meaning as set out in Regulation 2 of the Framework Regulations 2011 (S.I. No. 333 of 2011).

Spectrum Access Fee (SAF)	The Spectrum Access Fee is a once-off upfront fee paid to the Commission by a Winning Bidder at the conclusion of the Award and in advance of being granted a 400 MHz Band Licence.
Spectrum Usage Fee (SUFs)	An annual fee paid to the Commission by a Licensee for its 400 MHz Band Licence.
TDD	Time Division Duplex. A method for emulating full-duplex communication over a half-duplex communication link. The transmitter and receiver both use the same frequency but transmit and receive traffic is switched in time.
Valid Bid	A Bid submitted during an Auction or in an Application that is in accordance with the Award Rules.
Winning Bid	A Bid in respect of which a Winning Bidder is assigned at least one Lot.
Winning Bidder	A Bidder that wins at least one Lot in the Award Process.
Working Day	Working Day means a day which is not a Saturday or a Sunday or a public holiday.
Zero Bid	A Clock Bid containing zero Lots with a Bid Amount of zero.

Annex: 2 Draft Regulations

This annex contains a draft of the proposed Regulations, reflecting ComReg's views as of the date of publication of this IM. Any final version of the Regulations, made by ComReg under section 6 of the Wireless Telegraphy Act 1926, shall be subject to the consent of the Minister for Communications, Climate Action and Environment under section 37 of the Communications Regulation Act 2002. ComReg may also make such editorial amendments to the text of any final Regulations as it considers necessary and without further consultation, where such amendments do not affect the substance of the final Regulations.

WIRELESS TELEGRAPHY (400 MHZ BAND LICENCES) REGULATIONS, 2019

Notice of the making of this Statutory Instrument was published in "Iris Oifigiúil" of [XX] 2019.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926) as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), and with the consent of the Minister for Minister for Communications, Climate Action and Environment pursuant to section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. These Regulations may be cited as the wireless telegraphy (400 MHz Band Licences) Regulations 2019.

Interpretation

2. (1) In these Regulations -

"400 MHz Band" means the part of the radio frequency spectrum consisting of the 410 – 414 MHz / 420 – 424 MHz sub-band;

"400 MHz Band Licence" means a licence in the form set out in Schedule 1 to keep and have possession of Apparatus in the State in accordance with and subject to the terms and conditions contained in the Licence and Schedule 2;

"Act of 1926" means the Wireless Telegraphy Act 1926 (No. 45 of 1926);

"Act of 1972" means the Wireless Telegraphy Act, 1972 (No. 5 of 1972);

"Act of 2002" means the Communications Regulation Act 2002 (No. 20 of 2002);

“Apparatus” means apparatus for wireless telegraphy as defined in Section 2 of the Act of 1926 for terrestrial systems that utilise radio frequencies in the 410 – 414 MHz / 420 – 424 MHz sub-band;

“Authorisation Regulations” means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. 335 of 2011);

“Award” means the competitive award procedure used by the Commission for the purpose of granting individual rights of use for radio frequencies in the 400 MHz Band, as detailed in the Information Memorandum;

“Award Rules” means the rules and procedures relating to the Award as set out in the Information Memorandum and its Annexes;

“Base Station” means Apparatus connected to a network, which provides a Radiocommunication Service using the 400 MHz Band;

“Commission” means the Commission for Communications Regulation established under the Act of 2002;

“Commencement Date” means the date specified in a Licence upon which the Licence comes into effect;

“CPI” means the Consumer Price Index as published from time to time by the CSO;

“CPI Adjustment” means a negative or positive adjustment to a Spectrum Usage Fee, calculated using the CPI according to the methodology set out in the Information Memorandum;

“CSO” means the Central Statistics Office of Ireland or its successor;

“Electronic communications network” and “electronic communications service” have the meanings assigned to them in the Framework Regulations;

“Equivalent Isotropically Radiated Power” (EIRP) means the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna;

“Frequency Division Duplex” means Frequency Division Duplex.

“Framework Regulations” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. 333 of 2011);

“Harmful Interference” has the meaning set out in the Framework Regulations;

“Information Memorandum” means the document published by the Commission on 30 August 2019 and bearing the Commission Document number 19/80 and which

details the processes and procedures the Commission will follow in running the Award, as may be updated from time to time;

“Licence” means a non-exclusive licence granted under section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep and have possession of Apparatus;

“Licensee” means the holder of a Licence;

“Lot” means a 2 × 3 MHz block of spectrum or a 2 × 100 kHz block of spectrum in the 400 MHz Band, as appropriate;

“Network Utility Operator” means:

- in the electricity sector -

(1) *A person that has been granted a licence by the Commission for Regulation of Utilities under section 14 of the Electricity Regulation Act 1999, as amended:*

- *to discharge the functions of the transmission system operator;*
- *to discharge the functions of the transmission system owner;*
- *to discharge the functions of the distribution system operator;*
- *to discharge the functions of the Distribution System Owner.*

- in the gas sector –

(2) *the company, or a subsidiary of the company, the functions of which are laid out in section 8 of the Gas Act 1976 and in section 11 of the Gas (Interim) (Regulation) Act 2002; and*

- in the water sector –

(3) *The private company limited by shares formed by virtue of section 4 of the Water Services Act 2013 as amended.*

“non-exclusive” in relation to a Licence means that the Commission is not precluded from authorising the keeping and having possession by persons other than the Licensee, on a Non-interference and non-protected basis, of apparatus for wireless telegraphy in the radio frequency spectrum specified in the Licence;

“Non-interference and non-protected basis” means that the use of Apparatus is subject to no Harmful Interference being caused to any Radiocommunication Service, and that no claim may be made for the protection of Apparatus used on this basis against Harmful Interference originating from Radiocommunication Services;

“Radio Equipment Regulations” means the European Union (Radio Equipment) Regulations 2017 (S.I. No. 248 of 2017);

“Radiocommunication Service” means a service as defined in the Radio Regulations of the International Telecommunication Union involving the transmission, emission or reception of radio waves for specific telecommunication purposes;

“Reserve Price” means the relevant price as detailed in Schedule 2;

“Smart Grid” means advanced delivery systems for utility services (electricity, gas and water) from sources of generation and production to key elements in the grid networks and includes all supervisory and control necessary for their effective management. For the avoidance of doubt, this definition does not include the use of smart metering, which consists of devices located at premises that record energy, water and gas usage and provide two-way electronic communication between consumers and the grid;

“Spectrum Access Fee” means a once-off upfront fee paid to the Commission by a Winning Bidder at the conclusion of the Award and in advance of being granted a 400 MHz Band Licence;

“Spectrum Usage Fee” means an annual fee paid to the Commission by a Licensee for its 400 MHz Band Licence;

“Third Party Radio” means radio apparatus used for the provision of Radiocommunication Services, mainly, but not exclusively, to third parties;

“Winning Bidder” has the meaning set out in the Information Memorandum; and

“Working Day” means a day which is not a Saturday or Sunday or a public holiday.

(2) In these Regulations:

- (a) a reference to an enactment or regulation shall be construed as a reference to the enactment or regulation as amended or extended by or under any subsequent enactment or regulation;
- (b) a reference to a Regulation or a Schedule is to a Regulation of or Schedule to these Regulations unless it is indicated that a reference to some other enactment is intended;
- (c) a reference to a paragraph or subparagraph is to the paragraph or subparagraph of the provision in which the reference occurs unless it is indicated that reference to some other provision is intended;
- (d) a reference to a Directive of the European Parliament and Council shall be the Directive as amended or extended by any subsequent Directive; and
- (e) a reference to a Decision of the European Commission shall be the Decision as amended or extended by any subsequent Decision.

(3) A word or expression that is used in these Regulations and that is also used in the Act of 1926 has, unless the context otherwise requires, the same meaning in these Regulations that it has in that Act.

(4) A word or expression that is used in these Regulations and that is also used in the Act of 2002 has, unless the context otherwise requires, the same meaning in these Regulations that it has in that Act.

(5) A word or expression that is used in these Regulations and that is also used in the Framework Regulations or in the Authorisation Regulations has, unless the context otherwise requires, the same meaning in these Regulations that it has in those Regulations.

(6) The Interpretation Act 2005 (No. 23 of 2005) applies to these Regulations.

Licences to which these Regulations apply

3. (1) These Regulations apply to: 400 MHz Band Licences.

Application for the Grant and Form of Licences

4. (1) A Winning Bidder may submit an application to the Commission to be granted a Licence, to include the assignment of such rights of use for radio frequencies in the 400 MHz Band as have been determined in accordance with the Information Memorandum and the outcome of the Award and subject to payment by the Winning Bidder of all applicable fees in respect of the relevant 400 MHz Band Licence.

(2) An application for a Licence under paragraph (1) shall be in writing and shall be in such form as may be determined by the Commission from time to time and the Commission may grant a Licence in accordance with the relevant provisions of the Authorisation Regulations.

(3) A Winning Bidder who applies to be granted a Licence shall furnish to the Commission such information as the Commission may reasonably require for the purposes of its functions under these Regulations and the Authorisation Regulations and the Commission may refuse to grant a Licence to any Winning Bidder who, without reasonable cause, fails to comply with a requirement to furnish any such information.

(4) A Licence to which these Regulations apply shall be in the form specified in the Schedules to these Regulations (as applicable), with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case.

Duration of Licences

5. (1) The Commencement Date of a 400 MHz Band Licence shall be such date as may be specified by the Commission, and unless it has been withdrawn or had its

duration reduced under Regulation 7, a 400 MHz Band Licence shall be of no more than fifteen years duration such that it shall expire in full on the fifteenth anniversary of its Commencement Date.

Conditions of Licences

6. (1) Any Licensee that is granted a Licence under these Regulations and to which these Regulations apply shall:

- (a) ensure that it complies with the conditions in its Licence and with these Regulations;
- (b) ensure that all Apparatus installed, maintained, possessed or kept under the Licence is capable of operating within the radio frequencies specified in the Licence;
- (c) ensure that all Apparatus worked or used under the Licence is worked or used only in the radio frequencies specified in the Licence;
- (d) comply with any rules to prevent spectrum hoarding as may be laid down by the Commission under the Framework Regulations;
- (e) ensure that it makes payment of all applicable Licence fees;
- (f) furnish to the Commission such information in respect of the Licence as may be required by the Commission from time to time;
- (g) ensure that all Apparatus under the Licence, or any part thereof, is installed, maintained, and used so as not to cause Harmful Interference;
- (h) ensure that the Apparatus under the Licence, or any part thereof, complies with the Radio Equipment Regulations;
- (i) comply with any special conditions imposed under section 8 of the Act of 1972;
- (j) upon becoming aware of any event likely to materially affect its ability to comply with these Regulations, or any conditions set out or referred to in any Licence, notify the Commission of that fact in writing no later than 5 Working Days upon becoming aware;
- (k) comply with all obligations under relevant international agreements relating to the use of Apparatus or the frequencies to which they are assigned;
- (l) any Licensee that is granted a 400 MHz Band Licence may use it only to install, maintain, possess, keep, work or use wireless telegraphy Apparatus which utilise Frequency Division Duplex technology;

- (m) ensure that on each anniversary of the initial date of granting of a 400 MHz Band Licence, the Licensee concerned shall submit up to date information to the Commission, including the locations of apparatus (both base stations and associated numbers of connected devices); and
- (n) ensure it complies with any non-ionising radiation exposure standards adopted and published by the International Commission for Non-Ionising Radiation Protection (ICNIRP) or its successors from time to time, any radiation exposure standards of the European Committee for Electrotechnical Standards and any other radiation exposure standards specified by law;
 - (i) emissions from apparatus operated by the Licensee ensure relevant non-ionising exposure limits specified by the guidelines published by ICNIRP are not exceeded; and
 - (ii) apparatus operated by the Licensee is not installed or operated at a location in such a manner as to cause the aggregate of non- ionising radiation exposure to exceed the limits specified by the guidelines published by ICNIRP.

Enforcement, Amendment, Withdrawal and Suspension

7. (1) The Commission shall enforce compliance with the conditions attached to any Licence in accordance with the Authorisation Regulations.

(2) The Commission may amend any Licence from time to time in accordance with the Authorisation Regulations.

(3) The Commission may suspend or withdraw a Licence in accordance with the Authorisation Regulations, including where it emerges that a Licensee breached one or more of the Award Rules during its participation in the Award.

(4) A Licence may be suspended or withdrawn by the Commission in accordance with the Authorisation Regulations.

Licence Fees

8. (1) The fees payable to the Commission for a 400 MHz Band Licence granted on foot of the Award shall consist of a single Spectrum Access Fee and annual Spectrum Usage Fees.

(2) The amount, in Euros, of all Spectrum Access Fees and Spectrum Usage Fees for any Licence shall be determined in accordance with the Information Memorandum and/or the outcome of the Award, and are detailed in Schedule 2 of these Regulations.

(3) The Spectrum Usage Fee for any period of less than one year shall be calculated on a pro rata daily basis for such period.

(4) The Spectrum Usage Fee for any 400 MHz Band Licence shall be calculated on a pro rata daily basis in accordance with the Information Memorandum and with Schedule 2 of these Regulations.

(5) All Spectrum Access Fee and Spectrum Usage Fees, less any applicable adjustments or refunds, shall be paid to the Commission on the dates specified by the Commission, and in the manner specified in the Information Memorandum and in Schedule 2 of these Regulations.

(6) If a 400 MHz Band Licence is suspended or withdrawn, the Licensee shall not be entitled to be repaid any part of the Spectrum Access Fee or Spectrum Usage Fee paid by the Licensee under this Regulation, but shall still be liable to pay any sums, including interest, that are outstanding.

(7) If the amount of radio frequency spectrum specified in a 400 MHz Band Licence is reduced, the Licensee may be entitled to a refund of the relevant Spectrum Usage Fees already paid in the relevant year and to a reduction on future Spectrum Usage Fees, on a pro rata basis having regard to the nature of the amendment. The Licensee shall not be entitled to any refund of its Spectrum Access Fee.

(8) If the duration of a 400 MHz Band Licence is reduced at the request of the Licensee, the Licensee may be entitled to a refund of Spectrum Usage Fees already paid in the relevant year, on a pro rata basis having regard to the reduced duration. The Licensee shall not be entitled to any refund of its Spectrum Access Fee.

(9) Failure by a Licensee to pay a required fee under this Regulation on or before the date it falls due shall constitute non-compliance by the Licensee concerned with these Regulations and the Commission, in respect of such non-payment of a fee, may take enforcement action in accordance with Regulation 7 and may take steps to recover the amount due in accordance with paragraphs 11 and 12 of this Regulation.

(10) Where a fee or part of a fee is not paid in time, the Licensee concerned shall pay to the Commission interest on the fee or part thereof that was or is outstanding. Interest shall accrue from the date when such fee or part thereof fell due until the date of payment of such fee or part thereof and shall be calculated at the same rate payable in respect of late payments in commercial transactions pursuant to the European Communities (Late Payment in Commercial Transactions) Regulations 2012, as amended (S.I. No. 580 of 2012).

(11) Any fee payable and owed by a Licensee under this Regulation may be recovered by the Commission from the Licensee as a simple contract debt in any court of competent jurisdiction.

Licensee to satisfy all legal requirements

9. (1) Licences granted pursuant to these Regulations do not grant to the Licensee any right, interest or entitlement other than to keep, have possession of, install, maintain, work and use Apparatus for wireless telegraphy for terrestrial systems capable of providing electronic communications services, in the State.

DRAFT

SCHEDULE 1 – 400 MHz BAND LICENCE

WIRELESS TELEGRAPHY ACT, 1926

Wireless Telegraphy (400 MHz Band Licences) Regulations

The Commission, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act, 1926 (No. 45 of 1926) grants the following licence to **[INSERT LICENSEE NAME]** of **[INSERT LICENSEE ADDRESS]** (“the Licensee”). The Licensee is hereby authorised to keep, have possession of, install, maintain, work and use apparatus as specified in part one of this Licence subject to the Licensee observing the conditions contained in this licence and in the Wireless Telegraphy (400 MHz Band Licences) Regulations, 2019 (S.I. No. X of 2019).

This Licence shall come in to effect on **DD/MM/YYYY** and subject to revocation, suspension or withdrawal, expires on **DD/MM/YYYY**.

Signed: _____

For and on behalf of the Commission for Communications Regulation

Date of Issue: _____

Official Stamp

DRAFT

Part One

Frequency Assigned to Licensee

Frequency Assigned to Spectrum

From _____ MHz to _____ MHz

Part Two

The Apparatus to which this Licence applies

Equipment Description	Manufacturer	Model
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Part Three

Apparatus Location and Details

Region	County	Site Identity	Eastings	Northings	Maximum EIRP
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Part Four

Licence Conditions

Section One - Technical Conditions

1. Technical Conditions

- (1) The EIRP limit is 50 W. Licensees shall ensure that the minimum EIRP required to maintain the network should be used at all times.
- (2) The maximum mean in-block power for user equipment, as specified in table 3, is a limit. Licensees shall ensure that the minimum EIRP required to maintain a network should be used at all times.
- (3) The Licensee shall comply with all memoranda of understanding agreed from time to time between the Commission and the national regulatory authority

responsible for communications matters in the UK, the Office of Communications (“Ofcom”), or its successor, in relation to the 400 MHz Band.

- (4) A Licensee must comply with any memorandum of understanding between the State and the United Kingdom that applies to the 400 MHz Band.
- (5) A Licensee must take all practicable steps to avoid Harmful Interference to the radio astronomy service and any other adjacent licensees.
- (6) In the event of Harmful Interference, the affected Licensees shall exchange information with a view to resolving the Harmful Interference by mutual consent. Where resolution cannot be agreed between the affected Licensees, ComReg may mediate in accordance with its statutory functions, objectives and duties.
- (7) if the address of the Licensee or the person to whom the Licence has been assigned changes, the Licensee or assignee shall, as soon as possible, notify the Commission in writing of the change.

Base Stations and User equipment

- (8) The technical conditions defined in the tables below shall apply to Base Stations and user equipment:

Table 1: BS Frequency range of out-of-block emissions (1.4 MHz, 3 MHz and 5 MHz channel bandwidth)

Channel width	Delta F _c (MHz) from centre frequency	Out-of-band emissions (transmitter output power)	Measurement bandwidth
1.4 MHz	0.7 to 2.1	-1 dBm -10/1.4 × (Delta F _c – 0.7) dB	100 kHz
	2.1 to 3.5	-11 dBm	100 kHz
	3.5 to 9.95	-16 dBm	100 kHz
3 MHz	1.5 to 4.5	-5 dBm -10/3 × (Delta F _c – 1.5) dB	100 kHz
	4.5 to 7.5	-15 dBm	100 kHz
	7.5 to 9.995	-16 dBm	100 kHz

5 MHz	2.5 to 7.5	-7 dBm -7/5 × (Delta F _c – 2.5) dB	100 kHz
	7.5 to 9.95	-14 dBm	100 kHz

Table 2: BS Frequency range of out-of-block emissions (1.25 MHz channel bandwidth)

Frequency offset from centre frequency (MHz)	Channel width 1.25 MHz	Measurement bandwidth
± 0.885-1.98	-17 dBm	30 kHz
± 1.98-4	-22 dBm	30 kHz

Table 3: User Equipment transmitter characteristics

Parameter	Value
Channel bandwidth	1.25, 1.4, 3 or 4 MHz
Maximum mean in-block power	31 dBm

Table 4: User Equipment maximum unwanted emission levels (1.4 MHz, 3 MHz and 5 MHz channel width)

Frequency offset from channel edge (MHz)	Channel width			Measurement bandwidth
	1.4 MHz	3 MHz	5 MHz	
± 0-1	-10 dBm	-13 dBm	-15 dBm	30 kHz
± 1-2.5	-10 dBm	-10 dBm	-10 dBm	1 MHz
± 2.5-2.8	-25 dBm	-10 dBm	-10 dBm	1 MHz
± 2.8-5		-10 dBm	-10 dBm	1 MHz
± 5-6		-25 dBm	-13 dBm	1 MHz
± 6-10			-25 dBm	1 MHz

Table 5: User Equipment maximum unwanted emission levels (1.25 MHz channel bandwidth)

Frequency offset from channel edge (MHz)	Channel width 1.25 MHz	Measurement bandwidth
± 0.885-1.98	-24 dBm	30 kHz
± 1.98-4	-44 dBm	30 kHz

(9) The technical requirements for channel bandwidths of between 6.25 kHz and 200 kHz are as follows:

- a. Wanted channel effective radiated power: 31 dBm for user equipment and 50 W for Base Station equipment.
- b. Adjacent and alternate adjacent channel power: Power in upper and lower channels, as well as in the lower and upper alternate adjacent channels, shall not exceed a value of 60 dBc below the transmitter power level without the need to be below the -36 dBm e.r.p
- c. Unwanted emissions in the spurious domain: During operation shall not exceed -36 dBm. During standby shall not exceed -57 dBm.

Section Two - Rollout Conditions for spectrum used for the provision of wireless connectivity for Smart Grid

1. Definitions

The following additional definitions shall apply to this licence:

“Utility Network” means the number and locations of equipment amenable to monitoring or remote control in a Smart Grid network as detailed in the Winning Bidders application to participate in the 400 MHz Award process.

2. Minimum rollout requirements

- (1) A Network Utility Operator shall, by the seventh anniversary of the commencement of its Licence, work and use spectrum assigned under its Licence for the provision of wireless connectivity for Smart Grid to cover at least 50% of its Utility Network, excluding equipment already adequately connected by existing fixed wired communications.

3. Reporting of Compliance

- (1) The Licensee shall submit to the Commission an annual compliance report on rollout within 28 days of each anniversary of the commencement of the Licence. The Commission reserves the right to publish any information provided by the Licensee, subject to the provisions of ComReg's guidelines on the treatment of confidential information.
- (2) The information required for this annual compliance report shall be agreed with the Commission in advance and the compliance report shall have sufficient detail and granularity to allow the Commission to verify the contents of the Licensee's annual compliance report.
- (3) Failure by the Licensee to submit the annual compliance report to the Commission within the specified time period shall be deemed to be non-compliance by the Licensee with both the reporting obligations and the relevant rollout obligation.
- (4) On the seventh anniversary of the licence, using the compliance report the Commission will assess as to whether or not the Licensee has met the relevant rollout obligation specified in Section 2 above. Where the Licensee has failed to meet the relevant rollout obligation, the Licensee shall provide adequate reasons and supporting information for same.
- (5) The Commission reserves the right to inspect any Apparatus installed by a Licensee at any time to ensure that the system is configured and operating in accordance with its Licence conditions and the Licensee shall facilitate any such inspections by the Commission within such time as may be specified by the Commission.

Part Five (for spectrum not used for the provision of wireless connectivity for Smart Grid)

Section 1 – Third Party Conditions

- (1) Where a 400 MHz Band Licensee allows a third party to keep, possess, install, maintain, work and use apparatus for the purpose of Third Party Radio services in 400 MHz Band spectrum:
 - o the 400 MHz Band Licensee will ensure that the third party complies with the conditions contained within these Regulations and the Schedule 1.

- the 400 MHz Band Licensee may not, without the consent of the Commission (which shall not be unreasonably withheld) assign the Licence or any of the powers, duties or functions conferred by it or otherwise transfer any of the rights or obligations conferred by it.

Section Two - Rollout Conditions

4. Definitions

The following additional definitions shall apply to this licence:

“Area” consists of Area 1 (Carlow, Dublin, Kildare, Kilkenny, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wexford, and Wicklow), Area 2 (Clare, Cork, Kerry, Limerick, Tipperary, and Waterford), and Area 3 (Cavan, Donegal, Galway, Leitrim, Mayo, Monaghan, Roscommon and Sligo).

5. Minimum rollout requirements

- (1) For each Area, a Licensee shall achieve and maintain 10 Base Stations in each Area by the third anniversary of the Licence using spectrum assigned under its Licence.
- (2) Where a Licensee has a Base Station in one Area and this Base Station is worked and used to provide service to another Area, the Base Station will be counted as being worked and used in the Area it serves (and not the Area in which it is located).
- (3) Where a Licensee has a Base Station in one county and this Base Station is worked and used to provide services to more than one Area (i.e. the Area in which it is located in and also neighbouring Areas), the Base Station will only be counted as a single Base Station for the purposes of meeting the rollout obligation and the Licensee may chose the Area in which such a Base Station is to be counted for this purpose.

6. Reporting of Compliance

- (1) The Licensee shall submit to the Commission an annual compliance report on rollout within 28 days of each anniversary of the commencement of the Licence. The Commission reserves the right to publish any information provided by the

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

- (2) The information required for this annual compliance report shall be agreed with the Commission in advance and the compliance report shall have sufficient detail and granularity to allow the Commission to verify the contents of the Licensee's annual compliance report.
- (3) Failure by the Licensee to submit the annual compliance report to the Commission within the specified time period shall be deemed to be non-compliance by the Licensee with both the reporting obligations and the relevant rollout obligation.
- (4) On the third anniversary of the licence, using the compliance report the Commission will assess as to whether or not the Licensee has met the relevant rollout obligation specified in Section 5 above. Where the Licensee has failed to meet the relevant rollout obligation, the Licensee shall provide adequate reasons and supporting information for same.
- (5) The Commission reserves the right to inspect any Apparatus installed by a Licensee at any time to ensure that the system is configured and operating in accordance with its Licence conditions and the Licensee shall facilitate any such inspections by the Commission within such time as may be specified by the Commission.

SCHEDULE 2 – FEES

Reserve Price

- (1) The Reserve Price is set out as follows
 - The Reserve Price for a Lot used for used for the provision of wireless connectivity for Smart Grid is €240,000 (two hundred and forty thousand Euro).
 - The Reserve Price for each Lot not used for the provision of wireless connectivity for Smart Grid is €8,000 (eight thousand Euro).

Spectrum Usage Fees

- (2) The annual Spectrum Usage Fees before CPI Adjustment for a Licence shall be the sum of the Spectrum Usage Fees for each Lot included in that Licence. For each Lot included in a Licence, the Spectrum Usage Fee for a one (1) year Licence period is:
- €39,000 per Lot plus the “CPI Adjustment” for a 400 MHz Band Licence used for the provision of wireless connectivity for Smart Grid; and
 - €1,300 per Lot plus the “CPI Adjustment” for a 400 MHz Band Licence not used for the provision of wireless connectivity for Smart Grid.
- (3) All Spectrum Usage Fees will be index-linked to the CPI published by the CSO.
- (4) The CPI Adjustment for a Spectrum Usage Fee shall be calculated using the month of the Commencement Date as the common base date for the CPI (i.e. CPI = 100). ComReg will also use the most current CPI data available to it at that time.

GIVEN under the official seal of the Commission for Communications Regulation,

[DATE] 2018

[NAME of COMMISSIONER]

For and on behalf of the Commission for Communications Regulation

The Minister for Communications, Climate Action and Environment consents to the making of the foregoing Regulations.

GIVEN under the Official Seal of the Minister for Communications, Climate Action and Environment,

[DATE] 2018

[NAME OF MINISTER]

Minister for Communications, Climate Action and Environment. **Explanatory Note**

(This note is not part of the Instrument and does not purport to be a legal interpretation.) These Regulations provide for the issue of Licences for apparatus for wireless telegraphy used solely for the provision of Radiocommunications Services in the 400 MHz Band, for the regulation of such apparatus and for the payment of fees by persons granted Licences for that purpose.

Annex: 3 Application Form

Applicants must complete Parts 1, 2 and 3 of this Application Form. Any additional documentation required to be supplied by the Applicant as part of its Application is to be appended to this Application Form.

Part 1: Administrative Information

For an Application to be complete, the administrative information listed in Table 1 below must be provided.

Appropriate evidence of the authorisation of Authorised Agents, as per paragraph 3.44 of the IM, must also be attached hereto.

Note that the Applicant name provided will be that to whom licences will be awarded where relevant. Contact details for Authorised Agents are those that will be used by ComReg for contacting the Bidder during the Award Process if necessary.

Information required	Information provided
Name of Applicant*	Name:
Complete postal address of registered office or, if it does not have a registered office, the principal place where it carries on business and, if different, address to which all communications will be sent regarding the Award Process	Address 1:
	Address 2 (if different):
Telephone number for Applicant	Telephone:

<p>Bank details of Applicant (for the purpose of returning part or all of the Applicant's Deposit where applicable)</p>	<p>Name of Bank and address of relevant branch:</p> <p>Account Number:</p> <p>Sort Code:</p> <p>BIC Code:</p> <p>IBAN No:</p>
<p>Name of Applicant's Authorised Agent 1** (Block capitals)</p>	<p>Name:</p>
<p>Position of Applicant's Authorised Agent 1</p>	<p>Position:</p>
<p>Telephone numbers and e-mail address of Applicants Authorised Agent 1</p>	<p>Telephone (fixed):</p> <p>Telephone (mobile):</p> <p>Email:</p>
<p>Specimen signature of Applicant's Authorised Agent 1 Witnessed By</p>	<p>Signature 1:</p> <p>Name:</p> <p>Position:</p> <p>Signature:</p>

<p>Name of Applicant's Authorised Agent 2*** (Block capitals)</p>	<p>Name:</p>
<p>Position of Applicant's Authorised Agent 2</p>	<p>Position:</p>
<p>Telephone numbers and e-mail address of Applicants Authorised Agent 2</p>	<p>Telephone (fixed): Telephone (mobile): Email:</p>
<p>Specimen signature of Applicant's Authorised Agent 2 Witnessed By</p>	<p>Signature: Name: Position: Signature:</p>

Table 1: Administrative information

* Note: In the case of Applicants that are bodies corporate, attach a certified copy of Certificate of Registration along with Articles of Association and Memorandum of Association or equivalent together with a certified translation thereof into English or Irish, where the original is not in English or Irish. Company Secretary or authorised signatory is required to certify the copy.

** Note: Authorised Agents must be authorised to bind the Bidder and to take all decisions or communicate all decisions connected with the Award Process on the Bidder's behalf including, but not limited to, the authority to submit Bids in respect of any of the Lots available in the Award Process and to commit to payment of the necessary amount if the Bidder is granted spectrum.

*** Note: Applicants can authorise one more person, who could act as the Alternate Authorised Agent in case of unavailability of the primary Authorised Person. In case of any duplication of submissions made on behalf of the Bidder by different Authorised Agents, the first submission made by an Authorised Agent would be considered as final and binding.

Evidence that an Applicant is a Network Utility Operator

Irrespective of the type of Lots(s) it is applying for, an Applicant:

- in the electricity sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with a copy of the relevant licence granted by the Commission for Regulation of Utilities;
- in the gas sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with: a written statement signed by an Authorised Agent confirming that it is the company, or a subsidiary of the company, the functions of which are laid out in section 8 of the Gas Act 1976 and in section 11 of the Gas (Interim) (Regulation) Act 2002, or a Network Utility Operator in the gas sector can provide ComReg with a copy of the relevant licence(s) granted by the Commission for Regulation of Utilities to own and operate a transmission or distribution system under section 16(1) of the Gas (Interim) (Regulation) Act 2002, as appropriate; and
- in the water sector which satisfies the definition of Network Utility Operator set out in Annex 1 of the IM must provide ComReg with a written statement signed by an Authorised Agent confirming that it is the private company limited by shares formed by virtue of section 4 of the Water Services Act 2013 as amended.

Part 2: Applicant Declaration

The terms “Award Rules”, “Applicant”, “Confidential Information” and “Insider” for the purposes of this declaration shall be construed as defined in the Information Memorandum.

[Delete, or strike out as appropriate depending on whether one or two Authorised Agents have been appointed]

I / We, the undersigned, being an Authorised Agent / Authorised Agents of [] (the “**Applicant**”) hereby undertake / undertakes, warrant / warrants and declare / declares, and to the extent that anything contemplated hereunder remains to be done, covenants / covenant, both on my / our own behalf and on behalf of the Applicant, having made all reasonable inquiries that:

1. The Applicant is entitled to submit the Application and participate in the Award Process, and the Applicant has obtained all necessary declarations of consent, permissions and approvals.
2. The Applicant has ensured and will ensure that all information and all declarations contained in the Application and appendices attached thereto are correct and accurate.
3. The Applicant has and will ensure that, until public announcement by ComReg on the outcome of the Award Process, the Applicant discloses Confidential Information only to the extent it is necessary and then, save as expressly permitted by the Information Memorandum, only to other parties who, prior to such disclosure, are Insiders in relation to the same Applicant and that the Applicant shall take all reasonable measures with a view to ensuring that the person who receives such Confidential Information treats it as confidential at all times until public announcement by ComReg on the outcome of the Award Process.
4. The Applicant has ensured and will ensure that the Applicant, the Applicant's employees, board of directors (where Applicant is a body corporate) and persons connected with the Applicant or Insiders refrain from disclosing Confidential Information to parties other than as specified in paragraph 3 above and from exchanging Confidential Information with other parties regarding the Applicant's strategy for obtaining and use of the Licence or Licences until public announcement by ComReg on the outcome of the Award Process.
5. Save as expressly permitted by the Information Memorandum, the Applicant will ensure that the Applicant and any Insiders - shall refrain from entering into

agreements or negotiations with a view to entering into agreements with other Interested Parties, including without prejudice to the generality of the foregoing agreements relating to spectrum, network or infrastructure sharing, from the time at which this Application is submitted to the date of the issue of the Licences.

6. The Applicant has ensured and will ensure that the Applicant - and, to the best knowledge of the Applicant, any Insiders - neither prior to the submission of the Application, nor after the submission thereof and until the Licences have been issued, shall enter into agreements or establish any understanding with a provider of equipment or software which:
 - regulates such provider's possibility of supplying equipment or software to another Applicant concerning the planning, establishment or operation of a network using the frequencies dealt with in this Award Process, or
 - regulate the prices or other terms and conditions that a provider of equipment or software may offer another Applicant in connection with the planning, establishment or operation of a network using the frequencies dealt with in this Award Process.

The Applicant has ensured that agreements already entered into or understandings already established, as mentioned in this paragraph 6, have been terminated, and to the best knowledge of the Applicant, and any Insider have ensured that any such agreements or understandings have been terminated.

7. The Applicant has ensured and will ensure that the Applicant - and, to the best knowledge of the Applicant, any Insider - does not enter into agreements or establish any understanding with a third party, either prior to or during the Award Process, for the access to or the use of the Applicant's network or networks using the frequencies dealt with in this Award Process, if the agreement or the understanding directs such third party not to participate or limits such third party's ability to participate in the Award Process.
8. The Applicant has ensured that agreements already entered into or understandings already established, as mentioned in the above paragraph, have been terminated, including to the best knowledge of the Applicant, any Insider has ensured such agreements or understandings have been terminated.
9. The Applicant has ensured and will ensure that the Applicant – and, to the best knowledge of the Applicant, any Insiders – both prior to and after the

submission of an Application and until the Licences have been issued, refrains from any action that could have an adverse effect on the Award Process.

10. The Applicant shall comply with the Award Rules as contained in the Information Memorandum including, without limitation, the provisions of Chapter 4 at all times and shall procure that its personnel, and Insiders, to the extent appropriate, shall also comply with the Award Rules from the date of publication of the Information Memorandum until the commencement of the Licences.
11. Save as disclosed in an appendix attached to this Declaration, the Applicant (i) is not, or, in case the Applicant is a partnership, a joint venture or equivalent, the relevant partners or participants are not, nor is expected to be subject to an insolvency process including, without prejudice to the generality of the foregoing, liquidation, examinership, receivership, bankruptcy, winding-up proceedings or equivalent proceedings in other jurisdictions and (ii) is capable of paying its debts as they fall due.
12. Save as disclosed in an appendix attached to this Declaration, the Applicant is not, or, in case the Applicant is a partnership, a joint venture or equivalent, the relevant partners or participants are not, nor is expected to be involved in any disputes which may in any material and adverse way affect the Applicant's possibility of complying with the terms of the Licence, if the Applicant is awarded such Licence.
13. The Applicant agrees that any disclosure made under paragraph 13 and/or paragraph 14 above must contain sufficiently clear and detailed information to allow ComReg to assess the Applicant's capacity to participate in the Award Process, to comply with the Award Rules and to comply with the terms of the Licence. The Applicant agrees that ComReg's decision further to any assessment in this respect shall be final and that ComReg reserves the right to, where necessary and proportionate, seek further information or clarification from an Applicant, to specify the level of detail required and the timescales within which it must be provided. The Applicant agrees that any failure to cooperate fully with this disclosure requirement may result in an Applicant's Application being deemed invalid or in subsequent disqualification of the Applicant from the Award Process.
14. The Applicant agrees that, even if they are unsuccessful in becoming a Bidder, they remain bound by the Award Rules, including those on confidentiality and Bidder behaviour, until a public announcement on the outcome of the Award Process is made by ComReg.

Applicant Name: _____

For and on behalf of the Applicant (Authorised Agent 1):

(Signature of those persons who are empowered to bind the Applicant or otherwise authorised to bind the Applicant)

Name in block capitals: _____

Date (DD/MM/YYYY):

--	--	--	--	--	--	--	--	--

Applicant Name: _____

For and on behalf of the Applicant (Authorised Agent 2):

(Signature of those persons who are empowered to bind the Applicant or otherwise authorised to bind the Applicant)

Name in block capitals: _____

Date (DD/MM/YYYY):

--	--	--	--	--	--	--	--	--

If the Applicant is a partnership, a joint venture or equivalent, the Declaration must also be signed by the relevant partners or participants:

As partner/participant:

(Signature)

Name in block capitals: _____

Date (DD/MM/YYYY):

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Part 3: Application Bid Form

The submission of this Application Bid Form as part of a complete Application represents a binding offer to pay the SAF and annual fees linked to each of the Lots specified in this IM in exchange for a Licence for those Lots, in accordance with the outcome of the Award Process and the IM. The Application Bid Form, including Reserve Prices are presented in the Tables below. Note that for an Application Bid Form to be valid, it must:

- Be accompanied by a Deposit paid into ComReg's Nominated Bank Account that shall at least correspond to the sum of the Reserve Prices of Lots requested by the Applicant by the deadline of **23:59 hours on Friday 11 October 2019**.

All Deposits are to be paid into ComReg's Nominated Bank Account. Transfers to ComReg's nominated account should be made to:

Bank of Ireland, 2 College Green, Dublin 2, Ireland.
Account Number: 96614639
Sort Code: 90-00-17
BIC Code: BOFII E2D
IBAN No: IE96 BOFI 9000 1796 6146 39

If making a bank transfer/EFT, please ensure that:

- Reference is "400 MHz Award"; and
- Your bank quotes your ComReg account number (if an existing ComReg account holder) in making the transfer to ComReg.

Information Required	Information Provided
Applicant Name:	
Total amount of Deposit:	

Table 2: Applicant and total amount of Deposit

Section 1: Network Utility Operators

This section applies to Network Utility Operators applying for the Part A Lot only or the Part A Lot and Part B Lots. Network Utility Operators that do not wish to apply for the Part A Lot should complete Section 2 only.

Part A – Bid Form (1 Lot available)

Lot name	Number of Lots available	Lot Size	Reserve price per lot	Number of Lots applied for
400/A	1	2 x 3 MHz	€240,000	

Table 3: Bid Form for Part A

Part B – Bid Form (10 Lots Available)

Table 4 refers to the number of frequency-generic Part B Lots a Network Utility Operator would want to acquire in the event that it **does win** the Part A Lot.

Lot name	Number of Lots available	Lot Size	Reserve price per lot	Number of Lots applied for (numerical form)	Number of Lots applied for (written form)
400/B	10	2 x 100 kHz	€8,000		

Table 4: Bid Form for Part B Award (10 Lots available)

Part B – Bid Form (10 Lots available)

Table 5 refers to the number of frequency-generic Part B Lots a Network Utility Operator would want to acquire in the event that it **does not win** the Part A Lot.

Lot name	Number of Lots available	Lot Size	Reserve price per lot	Number of Lots applied for (numerical form)	Number of Lots applied for (written form)
400/B	10	2 x 100 kHz	€8,000		

Table 5: Bid Form for Part B Award (10 Lots available)

Section 2: Other Applicants (i.e. Applicants not applying for the Part A Lot)

Table 6 refers to the number of frequency-generic Part B Lots (up to a maximum of ten) other Applicants would want to acquire **in the event that the Part A Lot is assigned**.

Part B – Bid Form (10 Lots available)

Lot name	Number of Lots available	Lot Size	Reserve price per lot	Number of Lots applied for (numerical form)	Number of Lots applied for (written form)
400/B	10	2 x 100 kHz	€8,000		

Table 6: Bid Form for Part B Award (10 Lots available)

Part B – Bid Form (40 Lots available)

Table 7 refers to the number of frequency-generic Part B Lots (up to a maximum of forty) other Applicants would want to acquire **in the event that the Part A Lot is not assigned**.

Lot name	Number of Lots	Lot Size	Reserve price per lot	Number of Lots available (numerical form)	Number of Lots applied for (written form)
400/B	40	2 x 100 kHz	€8,000		

Table 7: Bid Form for Part B Award (40 Lots available)

Applicant Name: _____

(Signature of those persons who are empowered to bind the Applicant or otherwise authorised to bind the Applicant)

Name in block capitals: _____

Date (DD/MM/YYYY):

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Part 4: Utility Network Details (Network Utility Operators only)

For an Application by a Network Utility Operator to be considered complete and valid (irrespective of the type of Lot(s) it is applying for), the Network Utility Operator must complete and submit details of its utility network as set out in the relevant table (Table 8, 9 or 10) below, and sign and submit the declaration below.

We, the undersigned, being Authorised Agents of [_____]
(the “**Applicant**”) hereby confirm that the utility network details submitted as part of the Application are up to date, accurate and truly represent the full extent of the Applicants network.

Applicant Name: _____

For and on behalf of the Applicant:

(Signature of those persons who are empowered to bind the Applicant or otherwise authorised to bind the Applicant)

Name in block capitals: _____

Date (DD/MM/YYYY):

--	--	--	--	--	--	--	--

We, the undersigned, being Authorised Agents of [_____] (the “**Applicant**”) hereby confirm that the utility network details submitted as part of the Application are up to date, accurate and truly represent the full extent of the Applicants network.

Applicant Name: _____

For and on behalf of the Applicant:

(Signature of those persons who are empowered to bind the Applicant or otherwise authorised to bind the Applicant)

Name in block capitals: _____

Date (DD/MM/YYYY):

--	--	--	--	--	--	--	--

If the Applicant is a partnership, a joint venture or equivalent, the Declaration must also be signed by the relevant partners or participants:

As partner/participant:

(Signature)

Name in block capitals: _____

Date (DD/MM/YYYY):

--	--	--	--	--	--	--	--

Utility Network Details

In the electricity sector, the following table should be completed and submitted, and accompanied by a table showing the names, addresses and coordinates³⁵ of each asset type:

Asset Type	Number
High Voltage Substations (38 kV or greater input and output)	
High Voltage/Medium Voltage Substations (38 kV or greater input, 10 or 20 kV output)	
Medium Voltage/Low Voltage Substations (10 or 20 kV input, 230 or 400 V output)	
Generation Stations	

Table 8. Electricity sector utility network details

³⁵ Coordinates must be provided in Latitude / Longitude format and in Degrees, Minutes and Seconds.

In the gas sector, the following table should be completed and submitted and accompanied by a table showing the names, addresses and coordinates³⁶ of each asset type:

Asset Type	Number
Storage Points	
Pressure Regulating Installations	
Gas Entry Points	
Generation Stations	

Table 9. Gas sector utility network details

³⁶ Coordinates must be provided in Latitude / Longitude format and in Degrees, Minutes and Seconds.

In the water sector, the following table should be completed and submitted and accompanied by a table showing the names, addresses and coordinates³⁷ of each asset type:

Asset Type	Number
Storage Points	
Pumping Stations	
Water Treatment Plants	
Wastewater Treatment Plants	

Table 10. Water sector utility network details

³⁷ Coordinates must be provided in Latitude / Longitude format and in Degrees, Minutes and Seconds.

Application Checklist

Tick the boxes to ensure that all the required information is included in your Application. A complete Application must consist of the following:

Part 1: Original Administrative Information - All sections of Table 1 completed and signed.

- Appropriate evidence for authorisation of Authorised Agents as specified in paragraph 3.44 of the Information Memorandum
- Appropriate evidence that the Applicant is a Network Utility Operator (where relevant).

Part 2: Original Applicant Declaration signed

Part 3: Original Application Bid Form completed and signed

Part 4: The relevant utility network details completed (Table 8, 9 or 10) (Network Utility Operator only) and original signed declaration.

Note that five identical paper copies should also be provided with the Application for an Application to be considered complete. The original version of the Application Form should be identified as such. See below for further details.

Application Procedure

The Application procedure is set out in Section 3.3 of the Information Memorandum. In order to participate as a Bidder in the Award Process, an Applicant must submit in full the information and documentation required in this Application Form.

The container(s) in which the Application Form and associated documentation are submitted must not in any way disclose the identity of the Applicant.

ComReg will only accept applications on Working Days from **Monday 7 October 2019 to Friday 11 October 2019** between **09:00 and 17:30 hours** (as described in paragraph 3.114 of the IM). Applicants are required to make an appointment with ComReg to submit an Application. To make an appointment to submit an Application, Applicants are required to contact **Mr Patrick Bolton** by telephone on Working Days between **10:00 to 13:00 and 14:00 to 16:00 hours on Friday 4 October 2019 and Friday 11 October 2019** inclusive at:

Phone: 00353 (01) 804 9761

ComReg will be recording all phone calls made or received during the Auction in order to manage technical issues and risks arising and to ensure the integrity and administrative efficiency of the Award Process. These recordings, which shall be stored securely, shall be retained and used only for these purposes and shall be deleted once they are no longer required by ComReg for these purposes. In the event of a dispute arising ComReg may seek to rely on the contents of these recordings.

All Applications will be date and time stamped. Applicants will be given a receipt acknowledging the submission of their Application.

No Applications will be opened by ComReg until **after 17:30 hours on Friday 11 October 2019**. Applications will be opened in the presence of an independent auditor.

The deadline for receipt of Deposits, as set out in Section 3.3.3, will be **23:59 hours on the Application Date of Friday 11 October 2019**.

Once an Application has been submitted it will constitute a binding offer by the Applicant concerned to purchase the Lots applied for in the completed Application Bid Form.

Annex: 4 Worked Auction Example

- A 4.1 This annex presents a worked example to illustrate the mechanics of the Award Rules and how the specific frequency assignment would be determined.
- A 4.2 To demonstrate all the features of the Award Rules, the example assumes that the Part A Lot has already been awarded and considers only the auction of the Part B Lots. Applicants should note that the Award Rules for Part A and for Part B will be identical as described in Section 3.5 above.
- A 4.3 **This example is for illustrative purposes only.** It should not be interpreted as a recommendation on bid strategy, or as an indication of ComReg's expectations over the value of the spectrum or the bidding behaviour of Bidders or the number of expected Bidders.

Setup

- A 4.4 The Auction is for Part B Lots in the scenario where the Part A Lot has already been assigned. Therefore, ten 2×100 kHz Lots are available.
- A 4.5 There are three Bidders, Bidder A, Bidder B and Bidder C:
- Bidder A and Bidder B each wish to acquire eight Lots, six Lots, four Lots or two Lots.
 - Bidder C is interested only in winning eight Lots or four Lots.
- A 4.6 In their Initial Bids for this scenario, each of the three Bidders expressed demand for eight Part B Lots at the Reserve Price of €8,000 per Lot (€64,000 for all eight Lots)
- A 4.7 Bidder A has already won the Part A Lot.

The Auction

- A 4.8 The total demand expressed in the Bidders' Initial Bids is 24, which exceeds the number of Lots available, and a Part B Award is therefore required.
- A 4.9 The Round Price for the first Round will need to be set above the Reserve Price.
- A 4.10 Each Bidder's Eligibility for the first Round is eight (the number of Lots included in their Initial Bids).

Round 1

Round Price and Bids

A 4.11 The Round Price in Round 1 is set to €9,000 per Lot.

A 4.12 At this price, each Bidder can submit a Clock Bid for up to eight Lots, which is in line with its Eligibility for the Round.

A 4.13 For Bidder A, the Price is now too high for it to want to acquire eight Lots. It reduces its demand and submits a Clock Bid for six Lots, with a corresponding Bid Amount of $6 \times €9,000 = €54,000$. Bidder A could simultaneously submit Exit Bids for eight Lots and/or seven Lots but chooses not to.

A 4.14 Bidder B and Bidder C each submit a Clock Bid for eight Lots, with a corresponding Bid Amount of $8 \times €9,000 = €72,000$. It is not possible for either of these Bidders to submit Exit Bids in this round as their Activity is equal to their Eligibility for the Round (that is, they have not reduced their demand).

Assessment of Bids at the end of the Round

A 4.15 At the end of the Round, the Auction system will assess whether or not the Auction Closing Conditions have been met, taking into account the Bidders' Initial Bids and the Bids submitted in the first Round.

A 4.16 The following Bids will therefore be considered:

Bidder	Bid Type	No. Lots	Bid Amount
Bidder A	Initial	8	64,000
Bidder A	Clock	6	54,000
Bidder B	Clock	8	72,000
Bidder C	Clock	8	72,000

Table 11. End of Round 1 Bids

Note that the Initial Bids of Bidder B and Bidder C are not included as they have been superseded by those Bidders' Clock Bids for the same number of Lots at a higher Bid Amount.

A 4.17 Since there are only ten Lots available it is clearly not possible to award Lots to more than one Bidder on the basis of the Bids received so far. The Feasible Combinations of Bids are those which assign:

- eight Lots to Bidder A, with a value of €64,000;
- six Lots to Bidder A, with a value of €54,000;
- eight Lots to Bidder B, with a value of €72,000; or
- eight Lots to Bidder C, with a value of €72,000.

There are two value maximising Feasible Combinations of Bids (that is, one in which Bidder B is awarded eight Lots and another in which Bidder C is awarded eight Lots), but of course neither of these include a Bid from all three Bidders. As noted in Section 3.5.9, a Candidate Winning Combination of Bids is a value maximising Feasible Combination of Bids that includes a Bid from all Bidders (which may be a Zero Bid for any Bidder who has submitted a Zero Bid so far in the Auction). Therefore, there are no Candidate Winning Combinations of Bids, and a further Round is required with a higher Round Price.

Round 2

Round Price and Bids

A 4.18 The Round Price in Round 2 is set to €10,000 per Lot.

A 4.19 Bidder A's Eligibility for Round 2 is six, in line with the number of Lots included in its Clock Bid (its Activity) in Round 1. In Round 2, Bidder A reduces its demand further and submits a Clock Bid for four Lots, with a total Bid Amount of €40,000. It does not submit any Exit Bids.

A 4.20 Bidder B also reduces its demand and submits a Clock Bid for six Lots, with a total Bid Amount of €60,000. Bidder B does not submit any Exit Bids.

A 4.21 Bidder C continues to bid for eight Lots with an increased Bid Amount of €80,000.

Assessment of Bids at the end of the Round

A 4.22 At the end of Round 2, the following set of Bids will be assessed:

Bidder	Bid type	No. of Lots	Bid Amount
--------	----------	-------------	------------

Bidder A	Initial	8	64,000
Bidder A	Clock	6	54,000
Bidder A	Clock	4	40,000
Bidder B	Clock	8	72,000
Bidder B	Clock	6	60,000
Bidder C	Clock	8	80,000

Table 12. End of Round 2 Bids

A 4.23 On the basis of these Bids, the Feasible Combinations of Bids are:

- those that include a Bid from just a single Bidder (with a maximum value of €80,000, achieved by assigning eight Lots to Bidder C); and
- the combination that assigns four Lots to Bidder A and six Lots to Bidder B, with a value of €40,000 + €60,000 = €100,000.

A 4.24 The value maximising Feasible Combination of Bids is clearly the one in which Bidder A is allocated four Lots and Bidder B is allocated six Lots. However, since this combination does not include Bidder C, it cannot be considered a Candidate Winning Combination of Bids.

A 4.25 A further Round with a higher Round Price is therefore required.

Round 3

Round Price and Bids

A 4.26 The Round Price in Round 3 is set to €11,000 per Lot.

A 4.27 Bidder A's Eligibility for Round 3 is four, in line with its Activity in Round 2. In Round 3, Bidder A submits a Zero Bid (that is, a Clock Bid for zero Lots with a Bid Amount of €0). At the same time, Bidder A submits an Exit Bid for two Lots at €10,500 per Lot (that is, the Bid Amount for the Exit Bid is €21,000).

A 4.28 Bidder B's Eligibility for Round 3 is six, in line with its Activity in Round 2. Bidder B again reduces its demand (with no Exit Bids) and submits a Clock Bid for four Lots, with a total Bid Amount of €44,000.

A 4.29 Bidder C continues to Bid for eight Lots with an increased Bid Amount of €88,000.

Assessment of Bids at the end of the Round

A 4.30 At the end of Round 3, the following set of Bids will be assessed:

Bidder	Bid Type	No. Lots	Bid Amount
Bidder A	Initial	8	€64,000
Bidder A	Clock	6	€54,000
Bidder A	Clock	4	€40,000
Bidder A	Exit	2	€21,000
Bidder A	Clock	0	€0
Bidder B	Clock	8	€72,000
Bidder B	Clock	6	€60,000
Bidder B	Clock	4	€44,000
Bidder C	Clock	8	€88,000

Table 13. End of Round 3 Bids

At the end of Round 3 there are 15 Feasible Combinations of Bids, set out in table 14.

Combination of Bids						Total Value
Bidder A		Bidder B		Bidder C		
No. Lots	Bid Amount	No. Lots	Bid Amount	No. Lots	Bid Amount	
8	€64,000	–	–	–	–	€64,000
6	€54,000	4	€44,000	–	–	€98,000
6	€54,000	–	–	–	–	€54,000
4	€40,000	6	€60,000	–	–	€100,000
4	€40,000	4	€44,000	–	–	€84,000
4	€40,000	–	–	–	–	€40,000
2	€21,000	8	€72,000	–	–	€93,000

2	€21,000	6	€60,000	–	–	€81,000
2	€21,000	4	€44,000	–	–	€65,000
2	€21,000	–	–	8	€88,000	€109,000
2	€21,000	–	–	–	–	€21,000
0	€0	8	€72,000	–	–	€72,000
0	€0	6	€60,000	–	–	€60,000
0	€0	4	€44,000	–	–	€44,000
0	€0	–	–	8	€88,000	€88,000

Table 14: Feasible Combinations of Bids at the end of Round 3

A 4.31 The one with the maximum value includes Bidder A's Exit Bid for two Lots and Bidder C's Clock Bid for eight Lots, giving a total value of €109,000. There still does not exist a value maximising Feasible Combination of Bids that includes a Bid from all three Bidders (simply because there is no combination of compatible Bids from Bidder B and Bidder C).

A 4.32 The Auction must therefore continue with another Round.

Round 4

Round Price and Bids

A 4.33 The Round Price in Round 4 is set to €12,000 per Lot.

A 4.34 Bidder A has no Eligibility to Bid in Round 4 since it submitted a Zero Bid in Round 3. Bidder A can therefore not submit any further Bids in Round 4, or in any subsequent Rounds. However, the Bids it submitted previously in the Auction will continue to be taken into account when assessing Bids at the end of Rounds.

A 4.35 Bidder B's Eligibility for Round 4 is four, in line with its Activity in Round 3. Bidder B again submits a Clock Bid for four Lots, with a total Bid Amount of €48,000.

A 4.36 At this point, the Price is too high for Bidder C to want eight Lots, and it instead submits a Clock Bid for four Lots, with a total Bid Amount of €48,000. Bidder C does not submit any Exit Bids.

Assessment of Bids at the end of the Round

A 4.37 At the end of Round 4, the following set of Bids will be assessed:

Bidder	Bid Type	No. Lots	Bid Amount
Bidder A	Initial	8	€64,000
Bidder A	Clock	6	€54,000
Bidder A	Clock	4	€40,000
Bidder A	Exit	2	€21,000
Bidder A	Clock	0	€0
Bidder B	Clock	8	€72,000
Bidder B	Clock	6	€60,000
Bidder B	Clock	4	€48,000
Bidder C	Clock	8	€88,000
Bidder C	Clock	4	€48,000

Table 15. End of Round 4 Bids

In this case, there are 22 Feasible Combinations of Bids, set out in table 16.

Combination of Bids						Total Value
Bidder A		Bidder B		Bidder C		
No. Lots	Bid Amount	No. Lots	Bid Amount	No. Lots	Bid Amount	
8	€64,000	–	–	–	–	€64,000
6	€54,000	4	€48,000	–	–	€102,000
6	€54,000	–	–	4	€48,000	€102,000
6	€54,000	–	–	–	–	€54,000
4	€40,000	6	€60,000	–	–	€100,000
4	€40,000	4	€48,000	–	–	€88,000

4	€40,000	–	–	4	€48,000	€88,000
4	€40,000	–	–	–	–	€40,000
2	€21,000	8	€72,000	–	–	€93,000
2	€21,000	6	€60,000	–	–	€81,000
2	€21,000	4	€48,000	4	€48,000	€117,000
2	€21,000	4	€48,000	–	–	€69,000
2	€21,000	–	–	8	€88,000	€109,000
2	€21,000	–	–	4	€48,000	€69,000
2	€21,000	–	–	–	–	€21,000
0	€0	8	€72,000	–	–	€72,000
0	€0	6	€60,000	4	€48,000	€108,000
0	€0	6	€60,000	–	–	€60,000
0	€0	4	€48,000	4	€48,000	€96,000
0	€0	4	€48,000	–	–	€48,000
0	€0	–	–	8	€88,000	€88,000
0	€0	–	–	4	€48,000	€48,000

Table 16: Feasible Combinations of Bids after Round 4

A 4.38 The maximum value that can be achieved with a Feasible Combination of Bids is €117,000. This comes from accepting Bidder A's Exit Bid for two Lots, Bidder B's Clock Bid for four Lots, and Bidder C's Clock Bid for four Lots. Since this is a value maximising Feasible Combination of Bids that includes a Bid from all three Bidders, this is a Candidate Winning Combination of Bids and so the Auction will end.

A 4.39 There is exactly one Candidate Winning Combination of Bids, so this is the winning allocation:

- Bidder A wins two B-Lots at a price of €21,000.
- Bidder B wins four B-Lots at a price of €48,000.
- Bidder C wins four B-Lots at a price of €48,000.

A 4.40 There are no unsold Lots in this example.

Assignment Stage

A 4.41 Following completion of the Assessment Stage:

- Bidder A will be assigned the Part A Lot (410 – 413 MHz / 420 – 423 MHz) and two Part B Lots;
- Bidder B will be assigned four Part B Lots; and
- Bidder C will be assigned four Part B Lots.

A 4.42 The next step is to establish the specific frequency assignments for winners of the Part B Lots, in accordance with the rules set out in Section 3.6.

A 4.43 Since Bidder A has won the Part A Lot, the frequencies associated with the Part B Lots it has won will be automatically position adjacent to the Part A Lot frequencies. That is, Bidder A will be assigned the frequency block 410 – 413.2 MHz / 420 – 423.2 MHz.

A 4.44 The frequencies assigned to Bidder B and Bidder C will be above Bidder A's assignment and will be such that each Bidder is assigned a contiguous 2 × 400 kHz frequency block. There are two ways in which this could be achieved:

- Bidder B is assigned the frequency block 413.2 – 413.6 MHz / 423.2 – 423.6 MHz and Bidder C is assigned the frequency block 413.6 – 414 MHz / 423.6 – 424 MHz; or
- Bidder C is assigned the frequency block 413.2 – 413.6 MHz / 423.2 – 423.6 MHz and Bidder B is assigned the frequency block 413.6 – 414 MHz / 423.6 – 424 MHz.

A 4.45 One of these two options would be selected by ComReg at random.

Annex: 5 Assessment of Bids at the End of Rounds

A 5.1 This section provides a formal description of the process for determining whether or not the Auction can close at the end of a Round.

Packages, Bidders and Bids

A 5.2 Let J be the set of all Bidder. The total number of Bidders is therefore $|J|$.

A 5.3 Let B^j denote the set of Bids made by Bidder $j \in J$, and let $K^j = |B^j|$ be the number of such Bids. Let $\beta^{j,k} = (b^{j,k}, q^{j,k})$ denote Bid $k \in \{1, \dots, K^j\}$ from Bidder j , in which Bidder j offers to pay up to $b^{j,k}$ for a number of Lots $q^{j,k}$.

A 5.4 A Combination of Bids (across all the Bids made by the Bidders) is represented by the vector x of length equal to the number of all Valid Bids submitted by all Bidders, i.e.

$$x = (x^{1,1}, x^{1,2}, \dots, x^{1,K^1}, x^{2,1}, \dots, x^{|J|, K^{|J|}}),$$

where $x^{j,k}$ is a binary variable that is equal to 1 if the Bid $\beta^{j,k}$ of Bidder j is included in the combination and zero otherwise.

Feasible Combinations of Bids

A 5.5 A Combination of Bids x is a Feasible Combination of Bids if and only if it satisfies the following two conditions:

$$\sum_{j \in J} \sum_{k \in B^j} x^{j,k} q^{j,k} \leq n,$$

$$\sum_{k=1}^{K^j} x^{j,k} \leq 1 \quad \forall j \in J$$

where n is the number of Lots available in the Auction.

A 5.6 These conditions require that, in order for x to be a Feasible Combination of Bids:

- the number of Lots to be allocated across all Bidders under x is no more than the number of Lots available in the Auction; and

- each Bidder wins at most one of its Bids, that is, at most one Bid from each Bidder is selected in x .

We will denote the set of all Feasible Combinations of Bids by F .

Value of a Feasible Combination of Bids

A 5.7 A Feasible Combination of Bids $x \in F$ has a value $v(x)$ calculated as the sum of the included Bid Amounts:

$$v(x) = \sum_{j \in J} \sum_{k \in B^j} (x^{j,k} b^{j,k})$$

Let F^* denote the set of Feasible Combinations of Bids of maximum value, that is,

$$F^* = \arg \max_{x \in F} v(x)$$

Candidate Wining Combination of Bids and Auction Closing Rule

A 5.8 A Combination of Bids x is a Candidate Winning Combination of Bids if it belongs to the set F^* and includes exactly one Bid (which may be a Zero Bid) from each Bidder.

A 5.9 Therefore, $x \in F^*$ is a Candidate Winning Combination of Bids if and only if:

$$\sum_{k=1}^{K^j} x^{j,k} = 1 \quad \forall j \in J$$

A 5.10 Let C denote the set of all Candidate Winning Combinations of Bids.

A 5.11 If the set C is empty then the Auction must continue with a further Round. If there is at least one Combination of Bids in C , the Auction will close.

A 5.12 If the set C consists of only one Candidate Winning Combination of Bids, this becomes the winning allocation.

A 5.13 If there are multiple Candidate Winning Combinations of Bids in the set C , the first tie-breaking rule requires that the winning allocation maximises the number of assigned Lots, that is, the winning allocation must belong to the set

$$C^* = \arg \max_{x \in C} \sum_{j \in J} \sum_{k \in B^j} x^{j,k} q^{j,k}$$

A 5.14 If C^* contains just a single Combination of Bids, this will be the winning allocation. If there are multiple Candidate Winning Combinations of Bids in the set C^* one of these will be selected at random as the winning allocation.