



STATUTORY INSTRUMENTS.

S.I. No. 532 of 2016

WIRELESS TELEGRAPHY (3.6 GHZ BAND LICENCES)
REGULATIONS 2016

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The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6 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 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 (3.6 GHz Band Licences) Regulations 2016.

Interpretation

2. (1) In these Regulations:

“3.6 GHz Band” means radio frequency spectrum in the range 3400 MHz to 3800 MHz but excluding the Guard Band Spectrum and the State Services Spectrum;

“3.6 GHz Band Liberalised Use Licence” means a Licence in the form set out in Schedule 1 to keep and have possession of Apparatus in one or more than one Region, in accordance with and subject to the terms and conditions contained in the licence;

“3.6 GHz Band Preparatory Licence” means a Licence in the form set out in Schedule 3 to keep and have possession of Apparatus in one or more than one Region, in accordance with and subject to the terms and conditions contained in the Licence;

“3.6 GHz Band Spectrum Lease Licence” means a Licence in the form set out in Schedule 2 to keep and have possession of Apparatus in one or more than one Region, in accordance with and subject to the terms and conditions contained in the Licence;

“3.6 GHz Band Transition Protected Licence” means a Licence in the form set out in Schedule 4 to keep and have possession of Apparatus for the provision of FWA services in one or more than one FWALA Service Area, in accordance with and subject to the terms and conditions contained in the Licence;

“3.6 GHz Band Transition Unprotected Licence” means a Licence in the form set out in Schedule 5 to keep and have possession of Apparatus for the provision of FWA services in one or more than one specified FWALA Service Area on

a Non-Interference and Non-Protected Basis, in accordance with and subject to the terms and conditions contained in the Licence;

“Act of 1926” means Wireless Telegraphy Act 1926 (No. 45 of 1926);

“Act of 1972” means Wireless Telegraphy Act 1972 (No. 5 of 1972);

“Act of 2002” means Communications Regulation Act 2002 (No. 20 of 2002);

“Additional Price” has the meaning set out in the Information Memorandum;

“Apparatus” in relation to Licences means apparatus for wireless telegraphy as defined in section 2 of the Act of 1926 for terrestrial systems capable of providing Electronic Communications Services in the 3.6 GHz Band;

“Award” means the competitive award procedure used by the Commission for the purpose of granting individual rights of use for radio frequencies in the 3.6 GHz 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;

“Authorisation Regulations” means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011);

“Base Price” has the meaning set out in the Information Memorandum;

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

“Commission” means the Commission for Communications Regulation;

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

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

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

“Decision of 2008” means European Commission Decision 2008/411/EC of 21 May 2008 on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community;

“Decision of 2014” means European Commission Implementing Decision (2014/276/EU) of 2 May 2014 on amending Decision 2008/411/EC on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community;

“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;

“Existing Licence” means a licence under the Wireless Telegraphy (Fixed Wireless Access Local Area Licence) Regulations 2003 (S.I. No. 79 of 2003);

“Existing Licensee” means a holder of an Existing Licence;

“Fixed Wireless Access” or “FWA” means the wireless provision of Electronic Communications Services between a single base station at a fixed location and multiple subscriber terminal stations at fixed locations where the base station is connected to an Electronic Communications Network;

“Framework Regulations” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011);

“FWALA Service Area” means the geographic area defined by way of a circle around the centre point specified in an Existing Licence with a maximum radius of 20 kilometres from that centre point less any geographic areas as may be excluded by the Commission;

“General Authorisation” means an authorisation for an undertaking to provide an electronic communications network or service under and in accordance with Regulation 4 of the Authorisation Regulations;

“Guard Band Spectrum” means radio frequency spectrum in the range 3400 MHz to 3410 MHz;

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

“Information Memorandum” means the information memorandum which was published on 24 August 2016 and set out in the Commission’s Document numbered 16/71 for the purposes of outlining in detail the processes and procedures the Commission will follow in running the Award, as may be updated from time to time;

“Lease” means the leasing by a Licensee (“the Lessor”) of some or all of a right of use granted under a 3.6 GHz Band Liberalised Use Licence to another party (“the Leaseholder”) for a period less than the entire remaining duration of the right of use, after which the right of use reverts to the Lessor;

“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 in a defined geographic area, being one of:

- (a) a 3.6 GHz Band Liberalised Use Licence;
- (b) a 3.6 GHz Band Spectrum Lease Licence;
- (c) a 3.6 GHz Band Preparatory Licence;
- (d) a 3.6 GHz Band Transition Protected Licence; or
- (e) a 3.6 GHz Band Transition Unprotected Licence,

as the case may be;

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

“Licensee” means the holder of a Licence;

“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 on 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;

“R&TTE Regulations” means the European Communities (Radio Equipment and Telecommunications Terminal Equipment) Regulations 2001 (S.I. No. 240 of 2001);

“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;

“Region” means a regional area of the State specified in Schedule 10;

“Reserve Price” means the relevant price as detailed in Schedule 6;

“Spectrum Usage Fee” or “SUF” means the relevant fee as detailed in Schedule 7;

“State Services Spectrum” means radio frequency spectrum in the range 3435 MHz to 3475 MHz;

“Transfer” has the meaning set out in the Transfer Regulations;

“Transferee” has the meaning set out in the Transfer Regulations;

“Transfer Regulations” means the Wireless Telegraphy (Transfer of Spectrum Rights of Use) Regulations 2014 (S.I. No. 34 of 2014);

“Type A Spectrum Block” means a 25 MHz unpaired block of radio frequency spectrum in the range 3410 MHz — 3435 MHz;

“Type B Spectrum Block” means a 5 MHz unpaired block of radio frequency spectrum in the range 3475 MHz — 3800 MHz;

“Undertaking” has the meaning set out in the Framework Regulations;

“Upfront Fee” has the meaning set out in the Information Memorandum;

“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:

- (a) 3.6 GHz Band Liberalised Use Licences,
- (b) 3.6 GHz Band Spectrum Lease Licences,
- (c) 3.6 GHz Band Preparatory Licences,
- (d) 3.6 GHz Band Transition Protected Licences, and
- (e) 3.6 GHz Band Transition Unprotected Licences.

Application for the Grant and Form of Licences

4. (1) Application for the grant of a 3.6 GHz Band Liberalised Use Licence, 3.6 GHz Band Preparatory Licence or 3.6 GHz Band Transition Protected Licence on foot of the Award shall be made by a Winning Bidder to the Commission in writing and in such form as may be determined by the Commission from time to time.

(2) The Commission may grant a 3.6 GHz Band Liberalised Use Licence, 3.6 GHz Band Preparatory Licence or 3.6 GHz Band Transition Protected Licence on foot of the Award following payment by the applicant of the relevant fees prescribed in Regulation 8.

(3) Application for the grant of a 3.6 GHz Band Transition Unprotected Licence shall be made by an Existing Licensee to the Commission in writing and in such form as may be determined by the Commission from time to time. The Commission may grant a 3.6 GHz Band Transition Unprotected Licence upon receipt of an application submitted in accordance with these Regulations following payment by the applicant of the relevant fees prescribed in Regulation 8.

(4) The Commission may grant a 3.6 GHz Band Liberalised Use Licence to a transferee in accordance with the Transfer Regulations.

(5) Application for the grant of a 3.6 GHz Band Spectrum Lease Licence shall be made by a Lessee to the Commission in writing and in such form as may be determined by the Commission from time to time. The Commission may grant a 3.6 GHz Band Spectrum Lease Licence to a Leaseholder following the approval of the relevant spectrum Lease by the Commission in accordance with paragraphs 18 and 19 of Regulation 6.

(6) A person who makes an application under paragraphs (1), (3) or (5) shall furnish to the Commission such information as the Commission may reasonably require for the purposes of these Regulations, and if the person, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant the Licence concerned to the person.

(7) A 3.6 GHz Band Liberalised Use Licence to which these Regulations apply shall be in the form specified in Schedule 1, 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.

(8) A 3.6 GHz Band Spectrum Lease Licence to which these Regulations apply shall be in the form specified in Schedule 2, 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.

(9) A 3.6 GHz Band Preparatory Licence to which these Regulations apply shall be in the form specified in Schedule 3, 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.

(10) A 3.6 GHz Band Transition Protected Licence to which these Regulations apply shall be in the form specified in Schedule 4, 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.

(11) A 3.6 GHz Band Transition Unprotected Licence to which these Regulations apply shall be in the form specified in Schedule 5, 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 3.6 GHz Band Liberalised Use Licence shall be 1 August 2017 or such other date as may be specified by the Commission. Unless it has been withdrawn or had its duration reduced under Regulation 7(2), a 3.6 GHz Band Liberalised Use Licence to which these Regulations apply shall in any event expire on 31 July 2032.

(2) The commencement date and expiry date of a 3.6 GHz Band Spectrum Lease Licence shall be set by the Commission and specified in the 3.6 GHz Band Spectrum Lease Licence. A 3.6 GHz Band Spectrum Lease Licence to which these Regulations apply shall in any event expire before 31 July 2032.

(3) The commencement date and expiry date of a 3.6 GHz Band Preparatory Licence shall be set by the Commission and specified in the 3.6 GHz Band Preparatory Licence.

(4) The commencement date of a 3.6 GHz Band Transition Protected Licence shall be 1 August 2017 or such other date as may be specified by the Commission. The expiry date of a 3.6 GHz Band Transition Protected Licence shall be set by the Commission and specified in the 3.6 GHz Band Transition Protected Licence.

(5) The commencement date and expiry date of a 3.6 GHz Band Transition Unprotected Licence shall be set by the Commission and specified in the 3.6 GHz Band Transition Unprotected Licence. Unless it has been withdrawn or had its duration reduced under Regulation 7(2), a 3.6 GHz Band Transition

Unprotected Licence to which these Regulations apply shall in any event expire on 31 July 2022.

Conditions of Licences

6. It shall be a condition of any Licence to which these Regulations apply that the Licensee shall:

(1) ensure that it complies with the conditions contained within the Licence concerned and these Regulations;

(2) ensure that any Apparatus complies with the Decision of 2008 and the Decision of 2014;

(3) ensure that Apparatus installed, maintained, possessed or kept under the Licence is capable of operating within the radio frequency spectrum specified in the Licence concerned;

(4) ensure that where the Apparatus is worked or used, as appropriate, it is worked or used on such radio frequency spectrum as specified in the Licence concerned;

(5) comply with any rules to prevent spectrum hoarding as may be laid down by the Commission under the Framework Regulations;

(6) ensure that it makes payment of the fees set out in Regulation 8;

(7) ensure that in advance of the Licence Commencement Date and on or before 1 August for each calendar year in which the Licence concerned is in force, it submits up to date information to the Commission in respect of Parts 1, 2 and 3 of its 3.6 GHz Band Liberalised Use Licence, Parts 1, 2 and 3 of its 3.6 GHz Band Spectrum Lease Licence, Parts 2 and 3 of its 3.6 GHz Band Transition Protected Licence and/or Parts 2 and 3 of its 3.6 GHz Band Transition Unprotected Licence, as the case may be;

(8) furnish such information and reports as may be requested by the Commission from time to time;

(9) ensure that the Apparatus, or any part thereof, shall be installed, maintained, and where a Licence other than a 3.6 GHz Band Preparatory Licence is held, worked and used, so as not to cause Harmful Interference;

(10) ensure that the Apparatus or any part thereof complies with the R&TTE Regulations;

(11) comply with any special conditions imposed under section 8 of the Act of 1972;

(12) (a) notify the Commission, not less than 6 months prior to the proposed cessation of use of any terrestrial system listed in Part 2 of the 3.6 GHz Band Liberalised Use Licence or 3.6 GHz Band Spectrum Lease Licence as the case may be; and

(b) use all reasonable endeavours to ensure that any adverse effects on users caused by the cessation of use of a terrestrial system are minimised;

(13) 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;

(14) comply with all obligations under relevant international agreements relating to the use of Apparatus or the frequencies to which they are assigned;

(15) notify the Commission of its intention to transfer any rights of use for radio frequencies attaching to a Licence;

(16) only transfer the rights of use for radio frequencies attaching to a Licence in accordance with the Transfer Regulations;

(17) notify the Commission of its intention to lease any rights of use for radio frequencies attaching to a Licence;

(18) subject to paragraph 19, only lease the rights of use for radio frequencies attaching to a Licence in accordance with such procedures as may be specified by the Commission from time to time under Regulation 19 of the Framework Regulations;

(19) where the Commission has not yet put in place procedures referred to in paragraph 18 of this Regulation, not, without the prior consent of the Commission, which shall not be unreasonably withheld, lease any such rights of use attaching to a Licence; and

(20) ensure that if the address of the Licensee or its Transferee or Lessee changes, the Licensee, Transferee or Lessee shall, as soon as possible, but in any event within 28 days, notify the Commission in writing of the change.

Enforcement, Amendment, Withdrawal and Suspension

7. (1) Enforcement by the Commission of compliance by a Licensee with conditions attached to its Licence shall be in accordance with the Authorisation Regulations.

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

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

(4) A Licence may be suspended or withdrawn by the Commission if, after the grant of a Licence pursuant to these Regulations, it emerges that the Licensee has breached the Award Rules.

Licence Fees

8. (1) The fee for a 3.6 GHz Band Liberalised Use Licence granted on foot of the Award is the sum of the Upfront Fee and the Spectrum Usage Fees over the duration of the Licence less any adjustments or refunds applicable to the Licensee, as identified in the Information Memorandum.

(2) The Reserve Price per Type A Spectrum Block and Type B Spectrum Block per Region is detailed in Schedule 6.

(3) The Base Price and the Additional Price for a 3.6 GHz Band Liberalised Use Licence shall be determined using the pricing methodology set out in the Information Memorandum.

(4) The annual Spectrum Usage Fee before CPI Adjustment per Type A Spectrum Block and Type B Spectrum Block per Region is detailed in Schedule 7.

(5) The Spectrum Usage Fee for a 3.6 GHz Band Liberalised Use Licence is the sum of the annual SUFs before CPI Adjustment associated with each Type A Spectrum Block and Type B Spectrum Block identified in the Licence and the CPI Adjustment for each Type A Spectrum Block and Type B Spectrum Block identified in the Licence.

(6) In the case of a Spectrum Usage Fee for a period of less than one year, the Spectrum Usage Fee shall be the relevant sum as detailed in paragraph 5 adjusted on a *pro rata* daily basis for such period.

(7) Where the commencement date of a 3.6 GHz Band Liberalised Use Licence is delayed due to circumstances as described in the Information Memorandum, a Licensee shall be entitled to an adjustment of the Licence Fees payable or a refund of Licence Fees already paid, as provided for in the Information Memorandum.

(8) The Upfront Fee, as specified in paragraph 1 of this Regulation, less any adjustments or refunds applicable to the Licensee, shall be paid to the Commission on a date specified by the Commission in accordance with the Information Memorandum, by way of banker's draft or such other means and on such other terms, if any, as the Commission may decide. Where the date of payment falls on a day other than a Working Day, payment shall be made on or before the last Working Day before the date on which payment would otherwise have fallen due.

(9) The Spectrum Usage Fees for a 3.6 GHz Band Liberalised Use Licence granted on foot of a Transfer are the Spectrum Usage Fees specified in paragraphs 5 and 6 of this Regulation.

(10) The Spectrum Usage Fees specified in this Regulation, less any adjustments or refunds applicable to the Licensee, shall be paid to the Commission prior to the grant of a 3.6 GHz Band Liberalised Use Licence or prior to 1 August of each respective calendar year during the term of the 3.6 GHz Band Liberalised Use Licence, as the case may be.

(11) If a 3.6 GHz Band Liberalised Use Licence is suspended or withdrawn under Regulation 7(3) or Regulation 7(4), the Licensee shall not be entitled to be repaid any part of the Upfront 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.

(12) If the amount of radio frequency spectrum specified in a 3.6 GHz Band Liberalised Use Licence is reduced under Regulation 7(2), the Licensee may be entitled to a refund of Spectrum Usage Fees already paid and a reduction on future SUFs on a *pro rata* basis having regard to the nature of the amendment. The Licensee shall not be entitled to any refund of its Upfront Fee.

(13) If the duration of a 3.6 GHz Band Liberalised Use Licence is reduced at the request of the Licensee, the Licensee may be entitled to a refund of Spectrum Usage Fees already paid, on a *pro rata* basis having regard to the reduced duration. The Licensee shall not be entitled to any refund of its Upfront Fee.

(14) The fee for a 3.6 GHz Band Spectrum Lease Licence shall be specified by the Commission in accordance with such procedures as may be specified by the Commission from time to time under Regulation 19 of the Framework Regulations.

(15) The fee for a Preparatory Licence is €100.

(16) The fee per FWALA Service Area in a 3.6 GHz Band Transition Protected Licence is detailed in Schedule 8.

(17) The fee per FWALA Service Area in a 3.6 GHz Band Transition Unprotected Licence is detailed in Schedule 9.

(18) Any payment to be paid by a Licensee under this Regulation, with the exception of the Upfront Fee as specified in paragraph 1 of this Regulation, shall be made by way of banker's draft or such other means and on such other terms, if any, as the Commission may decide. Where the date of payment falls on a day other than a Working Day, payment shall be made on or before the last Working Day before the date on which payment would otherwise have fallen due.

(19) Failure by a Licensee to make any payment required to be made under this Regulation on or before the date it falls due constitutes non-compliance by the Licensee with these Regulations. The Commission, in addition to enforcement actions in accordance with Regulation 7 of these Regulations, may take steps to recover the fees due in accordance with paragraphs 20 and 21 of this Regulation.

(20) Where payment of any fee is not made in due time, then the Licensee shall pay to the Commission interest on the fees 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, (S.I. No. 580 of 2012).

(21) An amount payable by a person in respect of a fee under this Regulation may be recovered by the Commission from the person 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 the right to keep, and have possession of, install, and maintain, and for Licences other than a 3.6 GHz Band Preparatory Licence, to work and use, at a specified location or locations in the State, Apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services.

SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

**WIRELESS TELEGRAPHY (3.6 GHz BAND LICENCES)
REGULATIONS 2016**

**3.6 GHz Band Liberalised Use Licence for terrestrial systems capable of
providing Electronic Communications Services**

Licence under section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, hereby grants the following licence to _____ of _____ (“the Licensee”).

The Licensee is hereby authorised to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services as specified in Part 2 to this Licence, subject to such apparatus being installed, maintained, worked and used in accordance with the terms and conditions and restrictions set out in the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. *532* of 2016) (“the Regulations”), including, but not limited to, the following:

- (1) The Licensee shall ensure that it complies with all of the conditions contained within the Regulations, under which this Licence is issued, and within Parts 1 to 4 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations under which this Licence is issued.

This Licence shall come into effect on DD/MM/YY (the “Licence Commencement Date”) and, subject to revocation, suspension or withdrawal, expires on DD/MM/YY.

Signed: _____

For and on behalf of the Commission for Communications Regulation

Date of Issue: _____

Part 1

Commencement and Expiry dates per Type A and Type B Spectrum Block per Region

Region	Name of Spectrum Block	Frequency Assigned to Spectrum Block	Commencement Date per Spectrum Block	Expiry Date per Spectrum Block
	Block A, B, C etc.	From _____ MHz to _____ MHz	DD Month YYYY	DD Month YYYY

Part 2

The Apparatus to which this Licence applies

Equipment Index Reference	Terrestrial System	Equipment Description	Manufacturer	Model

Part 3

Apparatus Location and Details

Region	County	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP

Fixed outdoor Terminal Stations with a directional antenna

Region	County	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP

Part 4

Licence Conditions

Section 1: General

1. Definitions

The following additional definitions shall apply to this Licence:

“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;

“Licensed Spectrum Blocks” means the Spectrum Blocks set out in Part 1 of the Licence;

“Terrestrial Systems” means terrestrial systems capable of providing Electronic Communications Services that are in compliance with the technical implementing measures adopted pursuant to EC Decision No 2008/411/EC (as amended) and in conformity with the standards referred to in Parts 4; and

“Licensed Regions” means the Regions specified in Part 1 of the Licence.

2. Provision of Maps and Data

For the purposes of complying with rollout obligations (see Section 4) and quality of service obligations (see Section 5) compliance assessments, the Licensee shall, on request, provide to the Commission the following:

- (1) Maps showing rollout as required under Section 4;
- (2) An up-to-date list of the locations of Base Stations including the Rollout Base Stations covered by the Licence; and
- (3) An adequate number of Terminal Stations, Subscriber Identity Modules (SIM) cards or equivalents for testing as applicable.

Section 2: Technical Conditions

1. Definitions

The following additional definitions shall apply to this Licence:

“Base Station” means Apparatus connected to a backhaul network, which provides a Radiocommunication Service to Terminal Stations using the 3.6 GHz Band;

“dBm” means decibels of power referenced to one milliwatt;

“Downlink” means transmissions from a Base Station to a Terminal Station;

“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;

“Indoor Small Cell” means a Base Station with an EIRP of less than or equal to 24 dBm per 20 MHz carrier that is located indoors either within a residential or non-residential property;

“Inter-Licensee Co-ordination Agreement” means bi-lateral or multi-lateral agreements between Licensees on field strength co-ordination threshold levels at the boundaries of Regions;

“Inter-Licensee Synchronisation Procedure” means the synchronisation procedure set out in Section 3;

“Permissive Block Edge Mask” means the Base Station technical conditions defined in Table 1 below;

“Restrictive Block Edge Mask” means the Base Station technical conditions defined in Table 2 below;

“TDD” means time-division duplex;

“TD-LTE” means the TDD variant of LTE (Long Term Evolution) technology;

“Terminal Station” means mobile user equipment and fixed customer premise equipment which communicate with a Base Station using the 3.6 GHz Band; and

“Uplink” means transmissions from a Terminal Station to a Base Station.

2. Technical Conditions

- (1) Only Terrestrial Systems compatible with Decision 2008/411/EC (as amended) can be worked and used in the 3.6 GHz Band.
- (2) In the 3400 – 3600 MHz frequency range of the 3.6 GHz Band, the preferred duplex mode of operation is TDD.
- (3) In the 3600 – 3800 MHz frequency range of the 3.6 GHz Band, the duplex mode of operation is TDD.

Base Stations

- (4) Where the Inter-Licensee Synchronisation Procedure specified in Section 3 determines that the Permissive Block Edge Mask applies, the technical conditions defined in Table 1 below shall apply to Base Stations.

Table 1: Permissive Block Edge Mask

BEM Element	Frequency Range	Power Limit
In-block	Block assigned to the Licensee	68 dBm/5 MHz per antenna
Transitional Region	-5 to 0 MHz offset from lower block edge 0 to 5 MHz offset from upper block edge	Min(PMax -40, 21) dBm/5 MHz EIRP per antenna
Transitional Region	-10 to -5 MHz offset from lower block edge 5 to 10 MHz offset from upper block edge	Min(PMax -43, 15) dBm/5 MHz EIRP per antenna
Baseline	3400–3800 MHz (except for in-block and transitional regions)	Min(PMax -43, 13) dBm/5 MHz
Additional baseline	Below 3400 MHz and above 3800 MHz	-34 dBm/5 MHz EIRP per cell

- (5) Where the Inter-Licensee Synchronisation Procedure specified in Section 3 determines that the Restrictive Block Edge Mask applies, the technical conditions defined in Table 2 below shall apply. In order to meet the Restrictive Block Edge Mask, a Licensee may be required to adopt guard bands within its Licensed Spectrum Block(s).

Table 2: Restrictive Block Edge Mask

BEM Element	Frequency Range	Power Limit
In-block	Block assigned to the Licensee	68 dBm/5 MHz per antenna
Baseline	3400–3800 MHz (except for in-block frequencies)	-34 dBm/5 MHz EIRP per cell
Additional baseline	Below 3400 MHz and above 3800 MHz	-34 dBm/5 MHz EIRP per cell

- (6) 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, Ofcom, or its successor, in relation to the 3.6 GHz Band.¹
- (7) A co-ordination threshold limit of 32 dB μ V/m/5MHz for 90 per cent of the time and 90 per cent of the locations at a height of 10 metres at the borders of each Region shall apply.²
- (8) The co-ordination threshold limit specified at paragraph 7 may be relaxed when an Inter-Licensee Co-ordination Agreement is in place between all potentially affected Licensees. Inter-Licensee Co-ordination Agreements may be guided by ECC Recommendation (15)01³ or subsequent relevant guidance documents.
- (9) 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.

Terminal Stations

- (10) With the exception of fixed outdoor Terminal Stations with a directional antenna the maximum in-block power for a Terminal Station shall not exceed 25 dBm/5 MHz EIRP.
- (11) The maximum in-block power limit for fixed outdoor Terminal Stations with a directional antenna shall not exceed 37 dBm/5 MHz EIRP.
- (12) Fixed outdoor Terminal Stations with a directional antenna shall:
- (a) be installed, controlled by and remain the responsibility of the Licensee; and

¹See Annex 3 of ComReg Document 06/17R7 for a list of memoranda of understanding in place at the date of making of the Regulations.

²The field prediction method used shall be in accordance with Recommendation ITU-R P.452-16, unless otherwise specified by the Commission.

³See ECC Recommendation (15)01 — Cross-border coordination for mobile/fixed communications networks (MFCN) in the frequency bands: 694-790 MHz, 1452-1492 MHz, 3400-3600 MHz and 3600-3800 MHz — <http://www.erodocdb.dk/Docs/doc98/official/pdf/REC1501.PDF>

- (b) not cause Harmful Interference to any other users, be that Base Stations, other Terminal Stations, or other apparatus for wireless telegraphy in other radio frequency spectrum bands.

Section 3: Inter-Licensee Synchronisation Procedure

1. Definitions

The following additional definitions shall apply to this Licence:

“Default Frame Structure” means the frame structure as detailed in 3(1) below; and

“Other Frame Structure” means a frame structure other than the Default Frame Structure.

2. Introduction

- (1) Licensees shall co-operate in such a way that one network deployment does not cause Harmful Interference to that of another Licensee within the 3.6 GHz Band.
- (2) Licensees shall be bound by the Inter-Licensee Synchronisation procedure.
- (3) This procedure sets out the circumstances in which Licensees may use the Permissive Block Edge Mask and the Restrictive Block Edge Mask, so as to minimise the risk of Harmful Interference to other Licensees.

3. Conditions for Permissive Block Edge Masks

- (1) Default Frame Structure — The technical conditions for Permissive Block Edge Mask set out in Section 2 shall apply where a Licensee’s Base Station complies with the Default Frame Structure outlined below:
 - (a) Transmissions from a Licensee’s Base Station(s) shall have a frame structure as shown in Figure 1. Indicated timeslots (or subframes) must not be allocated to anything other than Downlink (D) and Uplink (U) transmissions. S denotes a special subframe. TD-LTE frame configuration 2 (Downlink: Uplink, 3:1) with special subframe configuration 6 or equivalent frame structures whose transmit and receive periods are aligned with this configuration are permitted;
 - (b) Timeslots shall have a duration of 1 millisecond; and
 - (c) Licensees shall ensure that frames start at a common reference time (+/- 1.5 μ s) so that all Licensees’ frames are aligned and transmissions synchronised.

Figure 1: Default Frame Structure

DL/UL ratio	Timeslot or Subframe number									
	0	1	2	3	4	5	6	7	8	9
3:1	D	S	U	D	D	D	S	U	D	D

4. Conditions for using the Restrictive Block Edge Masks

(1) Other Frame Structure — the technical conditions for Restrictive Block Edge Mask set out in Section 2 shall apply where a Licensee’s Base Station complies with the Other Frame Structure as outlined below:

- (a) All frame configurations that are not compatible with TD-LTE frame configuration 2 (3:1) with special subframe configuration 6 or equivalent frame structure whose transmit and receive periods are aligned with this configuration are permitted;
- (b) Licensees shall co-operate to minimise Harmful Interference caused by sub-frame overlaps if different technologies are used; and
- (c) Licensees using the Restrictive Block Edge Mask shall not cause Harmful Interference to those Licensees’ networks that use the Default Frame Structure (or equivalent). Achieving this may include applying internal guard bands and/or reduced in block power levels in blocks adjacent to those Licensees’ networks that use the Default Frame Structure (or equivalent).

5. Indoor Small Cells

(1) Indoor Small Cells are exempted from synchronisation. The Permissive Block Edge Mask set out in Section 2 applies to such Indoor Small Cells on the condition that they do not cause Harmful Interference to any other Licensees.

Section 4: Rollout Requirements

1. Definitions

The following additional definitions shall apply to this Licence:

“Network-Controlled Wireless Telegraphy Apparatus” means apparatus which has backhaul capability⁴ over a network connection under the control of the Licensee. For the avoidance of doubt, “plug-and-play” type apparatus, such as femto cells, Terminal Stations and repeaters, are not Network-Controlled Wireless Telegraphy Apparatus; and

⁴If the 3.6 GHz Band is used for the provision of backhaul connectivity, even if such Apparatus comprises of multiple hops to the network, this counts as a single Rollout Base Station, provided such backhaul connectivity carries data originating from or destined for multiple customer premises. The connection to individual customer premises equipment is excluded.

“Rollout Base Station” means a Network Controlled Wireless Telegraphy Apparatus in the 3.6 GHz Band with a minimum spectrum efficiency capability of 4 bits/Hz.

2. Base Station Minimum Rollout Requirements

- (1) For each Licensed Region, the Licensee shall achieve and maintain the Rollout Base Station obligation detailed in Table 3 below within 3 years of the Licence Commencement Date relevant to its Licensed Regions.

Table 3: Rollout Base station obligation by Region

Reference Number of Region	Name of Region	Number of Rollout Base Stations to be worked and used	
		Licensee holding up to and including 100 MHz in the 3.6 GHz band in that Region	Licensee holding over 100 MHz in the 3.6 GHz band in that Region
1	Borders, Midlands and West	15	25
2	East	15	25
3	South East	15	25
4	South West	15	25
5	Dublin city and suburbs	10	15
6	Cork city and suburbs	2	4
7	Limerick city and suburbs	2	4
8	Galway city and suburbs	2	4
9	Waterford city and suburbs	2	4

- (2) For Regions 1, 2, 3 and 4 in Table 3 above, the Licensee is required to work and use Rollout Base Stations in at least 4 counties for each Licensed Region⁵.
- (3) Where a Licensee has a Rollout Base Station in one county and this Rollout Base Station is worked and used to provide service to another county, the Rollout Base Station will be counted as being worked and used in the county it serves (and not the county in which it is located).
- (4) Where a Licensee has a Rollout Base Station in one county and this Rollout Base Station is worked and used to provide services to more than one county (i.e. the county in which it is located in and also neighbouring counties), the Rollout Base Station will only be counted as a single Rollout Base Station for the purposes of meeting the Rollout Base Station obligation and the Licensee may chose the county in which such a Rollout Base Station is to be counted for this purpose.

⁵Each of the areas of South Tipperary and North Tipperary will be deemed to be a county for the purposes of determining compliance with the rollout obligation.

- (5) Rollout Base Stations worked and used pursuant to a spectrum leasing arrangement count towards the Rollout Base Station obligation of the Lessor's Licence.
- (6) Where a Licensee has a spectrum leasing arrangement for a Rollout Base Station in a Region not contained in the Licensed Regions and this Rollout Base Station is being worked and used to serve a Region contained in the Licensed Regions, such a Rollout Base Station will be counted as being worked and used in the county and Region which it serves.
- (7) Where a Licensee shares a Rollout Base Station with another Licensee, such Rollout Base Stations can count towards the Rollout Base Station obligation of each Licensee in their respective Licensed Regions, provided that at least one Licensed Spectrum Block of each Licensee is worked and used by the Rollout Base Station.

3. Reporting of Compliance

- (1) The Licensee shall submit to the Commission an annual compliance report on rollout within 31 days of each anniversary of the commencement of the Licence.
- (2) In the annual compliance report the Licensee shall notify the Commission whether or not it has met the relevant rollout obligation specified in Section 4 (2) above. Where the Licensee has failed to meet the relevant rollout obligation, the Licensee shall provide adequate reasons and supporting information for same.
- (3) 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.
- (4) 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 Base Station Rollout obligation.
- (5) The Commission reserves the right to inspect any Rollout Base Station 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.

Section 5: Quality of Service (QoS) Obligations

1. Definitions

The following additional definitions shall apply to this Licence:

“Network” means any Terrestrial System which uses the Licensed Spectrum Blocks; and

“Network Unavailability” means the average number of minutes per six month period for which services on the network are not available due to a disturbance, failure or scheduled unavailability to a Network.

“Voice Call” means all relevant non-VOIP (Voice over Internet Protocol) and managed VOIP call services⁶ which are considered by the Commission to be substitutable with traditional voice call services as may be updated and notified to Licensees from time to time.

2. The Minimum “Availability of the Network” Standard

- (1) “Availability of the Network” shall be measured in terms of Network Unavailability and reported on an annual basis.
- (2) The Licensee shall ensure that Network Unavailability is less than 35 minutes (based on the weighting factors set out in Table 4 below) per six month period.

Table 4: Weighting Factors for Network Unavailability tracking all periods of network unavailability.

Network Unavailability, Weighting Factors (divide duration of each network event by weighting factor)			
	Monday to Friday	Saturday	Sunday
For periods between 07:00 and 24:00 hours	1	2	4
For periods between 00:00 and 07:00 hours	4	8	16

- (3) The “Availability of the Network” shall be calculated by combining the Network Unavailability measurements of the relevant services provided to the Licensee’s customers and provided to third party customers by the Licensee via contractual or other arrangements with the Licensee.
- (4) The Licensee shall maintain a network log on a per Base Station basis in a manner that can demonstrate to the satisfaction of the Commission that such a network log is an adequate means of assessing whether the Licensee is complying with its “Availability of the Network” licence obligations.

⁶See for example, paragraph 2.6 of ComReg Document 14/89, Market Review: Retail Access to the Public Telephone Network at a Fixed Location for Residential and Non Residential Customers in relation to the fixed voice calls.

- (5) The network log, or as may be appropriate part thereof, shall be made available to the Commission upon request by the Commission.
- (6) The Licensee shall calculate the Network Unavailability for any period specified by the Commission from the information recorded in the network log, and shall, upon request and within such time as may be specified by the Commission, provide the Commission with the results of the calculation.

3. The Minimum Voice Call Standard

- (1) Where the Licensee and/or any third party by means of a contractual or other arrangement with the Licensee provides a Voice Call service on a Terrestrial System using the Licensed Spectrum Blocks, the Licensee shall comply with the minimum Voice Call standard set out in Table 5 below.

Table 5: Minimum Voice Call Standards for each 6 month period for annual reporting

	Average	Worst Case
Maximum Permissible Blocking Rates (maximum percentage of total Voice Call attempts which are unsuccessful during the time consistent busy hour ⁷)	2%	4%
Maximum Permissible Dropped Call Rates (maximum percentage of total originating calls which are prematurely released by the Network within 3 minutes of the Voice Call being made.)	2%	4%
Transmission quality: The Licensee shall ensure that: <ul style="list-style-type: none"> • the speech transmission quality of Voice Calls is as good as or better than the speech quality associated with the relevant ETSI Standard and Technical Specifications; and • appropriate echo treatment equipment is used and that such equipment is properly configured. 		

- (2) Where a Voice Call service is provided by the Licensee and any third party via contractual or other arrangements with the Licensee, the minimum Voice Call standard shall be calculated by combining the Voice Call measurements of the Licensee with that of the third party.

4. Reporting on Compliance

- (1) The Licensee shall maintain a log in respect of the performance of its Network against the Minimum Voice Call Standards in Table 5, according to measuring standards as agreed with the Commission and in such a manner that can demonstrate to the satisfaction of the Commission that its network

⁷“Time consistent busy hour” means the period of one-hour starting at the same time each day for which the average traffic of the network concerned is greatest over the days under consideration. The time consistent busy hour shall be determined from an analysis of traffic data obtained from the service and be subject to the Commission’s approval.

The ‘Time consistent busy hour’ is determined from the Licensee’s voice traffic. It is the one-hour period during which there is the highest level of traffic. The blocked call rates are measured for the same one-hour period during each review period (i.e. 6 months). The one-hour period is determined by the Licensee and is subject to the Commission’s approval.

log is an adequate means of assessing whether the Licensee is complying with these standards.

- (2) The Licensee shall measure and submit to the Commission, within 31 days of each anniversary of the commencement of the Licence, an annual compliance report on the performance of its Network against the Minimum Voice Call Standards in Table 5.
- (3) In the annual compliance report the Licensee shall notify the Commission whether or not it has met the Minimum Voice Call Standards in Table 5. Where the Licensee has failed to meet any of these standards, the Licensee shall provide adequate reasons and supporting information for same.
- (4) The annual compliance report shall have sufficient detail and granularity to allow the Commission to verify the Licensee's measurements.
- (5) 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 these reporting obligations and the Voice Call standards.
- (6) The Licensee shall, upon request by the Commission⁸, carry out drive test measurements against the Maximum Permissible Blocking Rates and Maximum Permissible Dropped Call Rates standards and submit these results to the Commission. These drive test measurements are to be carried out at the Licensee's own expense and to a standard as agreed with the Commission.
- (7) Failure by the Licensee to carry out and submit the drive tests measurements to the standard agreed with the Commission shall be deemed to be non-compliance by the Licensee with both these reporting obligations and the Maximum Permissible Blocking Rates and Maximum Permissible Dropped Call Rates standards.

⁸The Commission does not envisage drive test measurements being required on a frequent basis, but notes that such measurements may be appropriate in circumstances where:

circumstances where:

- a Licensee is submitting a compliance report on QoS for the first time;
- the Commission's own verification checks, drive test measurements or other information suggests that there may be discrepancies in the compliance report on QoS or the Licensee may not be meeting its QoS obligations.

SCHEDULE 2**WIRELESS TELEGRAPHY ACT, 1926****WIRELESS TELEGRAPHY (3.6 GHz BAND LICENCES)
REGULATIONS 2016****3.6 GHz Band Spectrum Lease Licence for terrestrial systems capable of
providing Electronic Communications Services**

Licence under section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, hereby grants the following licence to _____ of _____ (“the Licensee”).

The Licensee is hereby authorised to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services as specified in Part 2 to this Licence, subject to such apparatus being installed, maintained, worked and used in accordance with the terms and conditions and restrictions set out in the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. **532** of 2016) (“the Regulations”), including, but not limited to, the following:

- (1) The Licensee shall ensure that it complies with all of the conditions contained within the Regulations, under which this Licence is issued, and within Parts 1 to 4 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations under which this Licence is issued.

This Licence shall come into effect on DD/MM/YY (the “Licence Commencement Date”) and, subject to revocation, suspension or withdrawal, expires on DD/MM/YY.

Signed: _____

For and on behalf of the Commission for Communications Regulation

Date of Issue: _____

Part 1

Commencement and Expiry dates per leased Type A and Type B Spectrum Block per Region

Lessor 3.6 GHz Band Liberalised Use Licence Number	Region	Name of Spectrum Block	Frequency Assigned to Spectrum Block	Commencement Date per Spectrum Block	Expiry Date per Spectrum Block
		Block A, B, C etc.	From ___ MHz to ___ MHz	DD Month YYYY	DD Month YYYY

Part 2

The Apparatus to which this Licence applies

Equipment Index Reference	Terrestrial System	Equipment Description	Manufacturer	Model

Part 3

Apparatus Location and Details

Region	County	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP ⁹

Fixed outdoor Terminal Stations with a directional antenna

Region	County	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP

Part 4

Licence Conditions

The Licence Conditions will be specified by the Commission in accordance with such procedures as may be specified by the Commission from time to time under Regulation 19 of the Framework Regulations.

⁹EIRP is the Equivalent Isotropically Radiated Power

SCHEDULE 3
WIRELESS TELEGRAPHY ACT, 1926
WIRELESS TELEGRAPHY (3.6 GHz BAND LICENCES)
REGULATIONS 2016

**3.6 GHz Band Preparatory Licence for terrestrial systems capable of providing
Electronic Communications Services**

Licence under section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, hereby grants the following licence to _____ of _____ (“the Licensee”).

The Licensee is hereby authorised to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services as specified in Part 2 to this Licence, subject to such apparatus being installed and maintained in accordance with the terms and conditions and restrictions set out in the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. 532 of 2016) (“the Regulations”), including, but not limited to, the following:

- (1) The Licensee shall ensure that it complies with all of the conditions contained within the Regulations, under which this Licence is issued, and within Parts 1 to 2 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations under which this Licence is issued.

This Licence shall come into effect on DD/MM/YY (the “Licence Commencement Date”) and, subject to revocation, suspension or withdrawal, expires on DD/MM/YY.

Signed: _____

For and on behalf of the Commission for Communications Regulation

Date of Issue: _____

Part 1

Licence Conditions

- (1) The Licensee may keep, have possession of, install and maintain the Apparatus detailed in Part 2 of this Licence.

- (2) The Licensee shall not work or use the Apparatus detailed in Part 2 of this Licence.

Part 2

The Apparatus to which this Licence applies

To Include:

Region	Commencement Date	Expiry Date	Manufacturer	Model
	DD Month YYYY	DD Month YYYY		

SCHEDULE 4**WIRELESS TELEGRAPHY ACT, 1926****WIRELESS TELEGRAPHY (3.6 GHz BAND LICENCES)
REGULATIONS****3.6 GHz Band Transition Protected Licence for terrestrial systems capable of
providing Electronic Communications Services**

Licence under section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, hereby grants the following licence to _____ of _____ (“the Licensee”).

The Licensee is hereby authorised to keep and have possession of Apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services as specified in Part 3 to this Licence, subject to such Apparatus being installed, maintained, worked and used for the provision of FWA services in accordance with the relevant terms and conditions and restrictions set out in the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. **532** of 2016) (“the Regulations”) including, but not limited to, the following:

- (1) The Licensee shall ensure that it complies with all of the conditions contained within the Regulations, under which this Licence is issued, and within Parts 1 to 3 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations under which this Licence is issued.

This Licence shall come into effect on DD/MM/YYYY (the “Licence Commencement Date”) 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: _____

Part 1

1. Definitions

The following additional definitions shall apply to this Licence:

“Interference Contour” means a circle around the Centre Point of the FWALA Service Area with a radius of 30 kilometres; and

“Minimum Loading Criteria” means criteria set down by the Commission to define the minimum usage of the frequency channel used by the FWA apparatus.

Part 2

Commencement and Expiry dates per FWALA Service Area

FWALA Service Area Number	Existing Licence Reference Number	Centre Point of FWALA Service Area (Easting, Northing)	Frequency Assigned	Commencement Date	Expiry Date	Exclusions to FWALA Service Area
			From ___ MHz to ___ MHz and From ___ MHz to ___ MHz	DD Month YYYY	DD Month YYYY	

Part 3

The Apparatus to which this Licence applies

Existing Licence Reference Number	Centre Point of FWALA Service Area (Easting, Northing)	Manufacturer	Model

SCHEDULE 5**WIRELESS TELEGRAPHY ACT, 1926****WIRELESS TELEGRAPHY (3.6 GHz BAND LICENCES)
REGULATIONS****3.6 GHz Band Transition Unprotected Licence for terrestrial systems capable
of providing Electronic Communications Services**

Licence under section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services on a Non-Interference and Non-Protected Basis.

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5 of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as amended, hereby grants the following licence to _____ of _____ (“the Licensee”).

The Licensee is hereby authorised to keep and have possession of apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services as specified in Part 3 to this Licence, subject to such apparatus being installed and maintained in accordance with the terms and conditions and restrictions set out in the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. 532 of 2016) (“the Regulations”), including, but not limited to, the following:

- (1) The Licensee shall ensure that it complies with all of the conditions contained within the 3.6 GHz Band Regulations, under which this Licence is issued, and within Parts 1 to 3 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations under which this Licence is issued.

This Licence shall come into effect on DD/MM/YY (the “Licence Commencement Date”) and, subject to revocation, suspension or withdrawal, expires on DD/MM/YY.

Signed: _____

For and on behalf of the Commission for Communications Regulation

Date of Issue: _____

Part 1

1. Definitions

The following additional definitions shall apply to this Licence:

“Minimum Loading Criteria” means criteria set down by the Commission to define the minimum usage of the frequency channel used by the FWA apparatus.

Part 2

Commencement and Expiry dates per FWALA Service Area

FWALA Service Area Number	Existing Licence Reference Number	Centre Point of FWALA Service Area (Easting, Northing)	Frequency Assigned	Commencement Date	Expiry Date	Exclusions to FWALA Service Area
			From ___ MHz to ___ MHz and From ___ MHz to ___ MHz	DD Month YYYY	DD Month YYYY	

Part 3

The Apparatus to which this Licence applies

Existing Licence Reference Number	Centre Point of FWALA Service Area (Easting, Northing)	Manufacturer	Model

SCHEDULE 6**Reserve price for Type A and Type B Spectrum Block per Region**

Region	Reserve Price per Type A Spectrum Block €	Reserve Price per Type B Spectrum Block €
Border, Midlands and West	114,000	22,800
South West	72,000	14,400
East	64,000	12,800
South East	44,000	8,800
CSO Boundary for Dublin City and Suburbs	178,000	35,600
CSO Boundary for Cork City and Suburbs	34,000	6,800
CSO Boundary for Limerick City and Suburbs	16,000	3,200
CSO Boundary for Galway City and Suburbs	14,000	2,800
CSO Boundary for Waterford City and Suburbs	8,000	1,600

SCHEDULE 7**Annual Spectrum Usage Fee before CPI Adjustment for Type A and Type B Spectrum Blocks per Region**

Region	Annual Spectrum Usage Fee before CPI Adjustment per Type A Spectrum Block €	Annual Spectrum Usage Fee before CPI Adjustment per Type B Spectrum Block €
Border, Midlands and West	17,670	3,534
East	12,800	1,984
South East	8,800	1,364
South West	14,400	2,232
CSO Boundary for Dublin City and Suburbs	35,600	5,518
CSO Boundary for Cork City and Suburbs	6,800	1,054
CSO Boundary for Limerick City and Suburbs	3,200	496
CSO Boundary for Galway City and Suburbs	2,800	434
CSO Boundary for Waterford City and Suburbs	1,600	248

SCHEDULE 8**Annual fee per FWALA Service Area in a 3.6 GHz Band Transition
Protected Licence**

Radio frequency spectrum bandwidth (paired channel)	Annual Fee (€)
Up to 7MHz	1,500
Over 7 MHz and up to 14 MHz	2,000
Over 14 MHz and up to 28 MHz	2,800

The fee for an unpaired channel is calculated by reference to its “equivalent” paired channel bandwidth.

Where a spectrum rights for a FWALA Service Area in a Licence is granted for a portion of a year the fee to be paid by the licensee shall be calculated as follows:

$$A \times (B/12) = C$$

Where:

- A is the relevant annual fee set out in this Schedule;
- B is the number of whole months for which the spectrum rights for a FWALA Service Area in the Licence is granted (if granted for a period of less than one month then, for the purpose of these calculations only, it shall be considered as a being granted for a period of one month); and
- C is the appropriate fee to be paid.

SCHEDULE 9

Annual fee per FWALA Service Area in a 3.6 GHz Band Transition Unprotected Licence

Radio frequency spectrum bandwidth (paired channel)	Annual Fee (€)
Up to 7MHz	1,783
Over 7 MHz and up to 14 MHz	2,378
Over 14 MHz and up to 28 MHz	3,329

The fee for an unpaired channel is calculated by reference to its “equivalent” paired channel bandwidth.

Where a spectrum rights for a FWALA Service Area in a Licence is granted for a portion of a year the fee to be paid by the licensee shall be calculated as follows:

$$A \times (B/12) = C$$

Where:

- A is the relevant annual fee set out in this Schedule;
- B is the number of whole months for which the spectrum rights for a FWALA Service Area in the Licence is granted (if granted for a period of less than one month then, for the purpose of these calculations only, it shall be considered as a being granted for a period of one month); and
- C is the appropriate fee to be paid.

SCHEDULE 10**DESCRIPTION OF THE REGIONS**

REGION NAME	REGION DESCRIPTION
Border, Midlands and West	That area of the State comprising counties Donegal, Leitrim, Sligo, Mayo, Roscommon, Cavan, Monaghan, Louth, Longford, Westmeath, Offaly, Laois and Galway, but excluding the respective parts of these counties contained in CSO Boundary for Galway City and Suburbs region, and as further specified in the Information Memorandum.
East	That area of the State comprising counties Meath, Kildare, Wicklow and Dublin, but excluding the respective parts of these counties contained in the CSO Boundary for Dublin City and Suburbs region, and as further specified in the Information Memorandum.
South East	That area of the State comprising counties Carlow, Wexford, the former local authority area of South Tipperary (as originally referred to as Tipperary South Riding in the Local Government Act 1898), Kilkenny and Waterford, but excluding the respective parts of these counties contained in the CSO Boundary of Waterford City and Suburbs region, and as further specified in the Information Memorandum.
South West	That area of the State comprising counties Clare, Limerick, Kerry, Cork and the former local authority area of North Tipperary (as originally referred to as Tipperary North Riding in the Local Government Act 1898) but excluding the respective parts of these counties contained in the CSO Boundary for Cork City and Suburbs region and the CSO Boundary for Limerick City and Suburbs region, and as further specified in the Information Memorandum.
CSO Boundary for Dublin City and Suburbs	That area of the State as defined by the CSO in the Census 2011 Boundary Files for Dublin City and Suburbs, and as further specified in the Information Memorandum.
CSO Boundary for Cork City and Suburbs	That area of the State as defined by the CSO in the Census 2011 Boundary Files for Cork City and Suburbs, and as further specified in the Information Memorandum.
CSO Boundary for Limerick City and Suburbs	That area of the State as defined by the CSO in the Census 2011 Boundary Files for Limerick City and Suburbs, and as further specified in the Information Memorandum.
CSO Boundary for Galway City and Suburbs	That area of the State as defined by the CSO in the Census 2011 Boundary Files for Galway City and Suburbs, and as further specified in the Information Memorandum.
CSO Boundary for Waterford City and Suburbs	That area of the State as defined by the CSO as per the Census 2011 Boundary Files for Waterford City and Suburbs, and as further specified in the Information Memorandum.

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

18th October 2016.

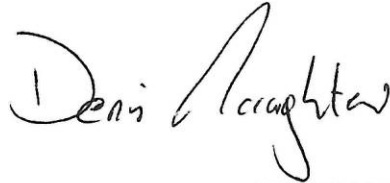
GERRY FAHY,
Commissioner

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 this
18th OCTOBER 2016.



DENIS NAUGHTEN

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 prescribe matters in relation to licences for apparatus for Wireless Telegraphy for terrestrial systems capable of providing Electronic Communications Services in the 3.6 GHz Band.

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