

Spectrum Lease Determination

Lease of spectrum rights in the 3.6 GHz band from Vodafone Ireland Limited to Imagine Communications Ireland Limited

Reference: ComReg 23/95

Date: 02/10/2023

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1 Introduction and background

1.1 The procedures and guidelines for transfers and leases of spectrum rights of use for electronic communications services ("ECS") in the 700 MHz¹, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2.6 GHz and 3.6 GHz bands in Ireland are set out in Commission for Communications Regulation ("ComReg") Document 14/11R.²

- 1.2 On 10 March 2023, ComReg formed the view that the lease of spectrum rights in the 3.6 GHz band to Imagine Communications Ireland Limited ("Imagine")³ from Vodafone Ireland Limited ("Vodafone")⁴ would not be likely to distort competition and determined that the lease may be put into effect for three months initially, followed by a further three-month period subject to the prior agreement by the parties, and approval by ComReg.⁵ The lease expired on 9 September 2023.
- 1.3 On 5 September 2023, Imagine submitted to ComReg a notification to lease spectrum rights in the 3.6 GHz band from Vodafone (the "Lease Notification") ("the "Proposed Lease").
- 1.4 ComReg published an information notice regarding the Proposed Lease on 7 September 2023 (Document 23/82⁶) which set out:
 - relevant technical details of the Lease Notification and other relevant material; and
 - the process by which interested parties could make submissions on the Proposed Lease and next steps.
- 1.5 ComReg does not repeat this background information and instead refers interested parties to Document 23/82.

¹ Decision (EU) 2017/899 of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union requires EU Member States to allow the transfer or leasing of spectrum rights of use in the 700 MHz (694-790 MHz) band.

² ComReg Document 14/11R, 'Spectrum Transfer and Lease Framework in Ireland - Procedures and Guidelines, and Notification Form(s)', revised 12 October 2017.

³ Imagine Communications Ireland Limited provides fixed wireless electronic communication services.

⁴ Vodafone Ireland Limited provides fixed and mobile ECS.

⁵ ComReg Document 23/X22 – Spectrum Lease Determination: Lease of spectrum rights in the 3.6 GHz band from Vodafone Ireland Limited to Imagine Communications Ireland Limited – published 10 March 2023.

⁶ ComReg Document 23/82 – " Spectrum Lease Notification: Proposed lease of spectrum rights in the 3.6 GHz band from Vodafone Ireland Limited to Imagine Communications Ireland Limited" - published 07 September 2023.

- 1.6 ComReg did not receive any submissions in response to Document 23/82.
- 1.7 This document sets out ComReg's written determination, having regard to the procedures and guidelines set out in Document 14/11R in particular.

1.1 Background – key aspects of framework for spectrum leases in Ireland

- 1.8 In October 2017, ComReg published its response ("Document 17/82")¹ to the public consultation ("Document 17/47")² on its proposed framework for spectrum leases in Ireland ("Spectrum Lease Framework"). ComReg also updated its spectrum transfer procedures to reflect its decisions on the Spectrum Lease Framework ("Document 14/11R).
- 1.9 While the draft Wireless Telegraphy (Transfer of Spectrum Rights of Use) (Amendment) Regulations have yet to be made, there is no impediment to the Proposed Lease in the 3.6 GHz Band.⁷

1.2 Background - 3.6 GHz Band, 3.6 GHz Band Award and Transition

3.6 GHz Band

- 1.10 The 3.6 GHz Band comprises the frequency range 3 400 3 800 MHz and in Ireland a total of 350 MHz is assigned to licensees for the purposes of providing ECS.⁸
- 1.11 The 3.6 GHz Band is one of the three "Pioneer 5G candidate bands" in Europe⁹ and its use is harmonised in Europe by way of European Commission decisions (EU) 2019/235 and 2008/411/EC.¹⁰
- 1.12 3.6 GHz Band rights of use in Ireland are service- and technology-neutral, and use cases include mobile broadband, fixed wireless broadband and small cells.

⁷ See, in particular, the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. 532 of 2016) at http://www.irishstatutebook.ie/eli/2016/si/532/made/en/print

⁸ The remainder comprises a 10 MHz guard band (between 3 400-3 410 MHz) and spectrum used by State Services.

⁹ https://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion 5G.pdf

¹⁰ Commission Implementing Decision (EU) 2019/235 of 24 January 2019 on amending Decision 2008/411/EC as regards an update of relevant technical conditions applicable to the 3400-3800 MHz frequency band (notified under document C(2019) 262) (Text with EEA relevance.)

3.6 GHz Band Award¹¹

1.13 On 22 May 2017, ComReg announced the results of its 3.6 GHz Band Award ("Award") which resulted in five Winning Bidders, across over nine regions (four rural and five urban), together "Regions") and assigned on a contiguous basis.¹²

3.6 GHz Band Transition

- 1.14 Prior to the Award, the 3.6 GHz Band was used to provide fixed wireless broadband services (and phone services in some cases) to 21,665 existing customers, predominantly in rural areas. In those areas, the then existing operators may have been the only available provider of broadband services, such as to homes and schools.
- 1.15 In order to ensure continued services for those existing customers while Winning Bidders prepared for the deployment of their services, ComReg developed a Transition licensing framework which it consulted upon extensively with interested parties and implemented by way of the rules of the Award which all participants to the Award agreed to be bound by.¹³ Essentially, this Transition licensing framework allows existing operators to continue to provide services to their customers until such time that Winning Bidders are ready to roll-out commercial services.
- 1.16 Relevantly, as Imagine was both a Fixed Wireless Access Local Area licensee and a Winning Bidder in the Award, Imagine was eligible to apply for, and currently holds, a 3.6 GHz Band Transition Protected Licence ("TPL")¹⁴, to facilitate the completion of its Transition Activities as provided for under Section 3.8 of the IM.
- 1.17 Further details on 3.6 GHz Band Transition activities are available on ComReg's website. 15
- 1.18 The following chapter sets out ComReg's assessment of the Proposed Lease and its determination.

https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/3-6qhz-band-spectrum-award/

¹¹ For more information, please see:

¹² Full details of the results are set out in Document 17/38 and corresponding Media Release.

¹³ These rules are contained in the 3.6 GHz Band Spectrum Award Information Memorandum (Document 16/71) ("IM").

¹⁴ See Section 2.6 of https://www.comreg.ie/publication/3-6-ghz-band-spectrum-award-information-memorandum/

¹⁵ See: https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/3-6-ghz-band-transition/

2 Determination

- 2.1 This chapter outlines ComReg's determination and is structured as follows:
 - 1. A brief description of the notifying parties and their spectrum holdings;
 - 2. Imagine's existing 3.6 GHz Band spectrum holdings;
 - 3. The Proposed Lease;
 - 4. Imagine's post-lease 3.6 GHz Band spectrum holdings; and
 - 5. Assessment.

2.1 The Notifying Parties

2.1.1 Business activities of the notifying parties

- 2.2 **Imagine** is the largest Wireless Internet Service Provider ("WISP") with circa 48,000 fixed broadband subscribers (3% market share by subscriptions) as at Q3 2022. Imagine does not provide mobile telecommunications services.
- 2.3 **Vodafone** is a mobile network operator ("MNO") with circa 3 million mobile subscribers (32.3% market share by subscriptions)¹⁷. Vodafone also provides fixed line broadband services and has circa 327,000 fixed broadband subscribers (20.2% market share by subscriptions)¹⁸.

2.1.2 Existing overall spectrum holdings of the notifying parties

2.4 The existing spectrum holdings of the notifying parties ¹⁹ capable for the provision of public wireless ECS is shown in **Table 1**: Existing spectrum holdings of notifying parties capable for the provision of public wireless ECS

¹⁶ Quarterly Key Data Report, Q2 2023.

¹⁷ Including mobile broadband and machine-to-machine subscriptions.

¹⁸ Quarterly Key Data Report, Q2 2023.

¹⁹ The figures exclude leases or other temporary rights of use.

Band	Vodafone	Imagine
700 MHz*	20 MHz	-
800 MHz	20 MHz	-
900 MHz	20 MHz	-
Total sub-1 GHz	60 MHz	-
1800 MHz	50 MHz	-
2.1 GHz FDD	40 MHz	-
2.3 GHz	-	40 MHz
2.6 GHz FDD	70 MHz	-
2.6 GHz TDD	30 MHz	15 MHz
3.6 GHz	85 MHz in rural regions and 105 MHz in the cities	60 MHz in each of the rural regions
Total supra-1 GHz	295 MHz	115 MHz
Total	355 MHz	115 MHz

2.5 below.²⁰

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 $^{^{20}}$ This excludes temporary spectrum rights issued under ComReg's Covid-19 Temporary Spectrum Management Measures, TPL and Previous Leases.

Table 1: Existing spectrum holdings of notifying parties capable for the provision of public wireless ECS

Band	Vodafone	Imagine
700 MHz*	20 MHz	-
800 MHz	20 MHz	-
900 MHz	20 MHz	-
Total sub-1 GHz	60 MHz	-
1800 MHz	50 MHz	-
2.1 GHz FDD	40 MHz	-
2.3 GHz	-	40 MHz
2.6 GHz FDD	70 MHz	-
2.6 GHz TDD	30 MHz	15 MHz
3.6 GHz	85 MHz in rural regions and 105 MHz in the cities	60 MHz in each of the rural regions
Total supra-1 GHz	295 MHz	115 MHz
Total ²¹	355 MHz	115 MHz

2.2 Imagine's existing 3.6 GHz Band spectrum holdings

- 2.6 Imagine's existing 3.6 GHz Band spectrum holdings consists of 60 MHz (in the frequency range 3560 to 3620 MHz) in each of four rural licence regions (i.e. Borders, Midlands and West; South West; East and South East) held under its 3.6 GHz Band Liberalised Use Licence ("LU Licence").
- 2.7 Imagine also holds 3.6 GHz Band spectrum rights in various parts of the band in 65 Transition Service Areas ("TSAs") under its TPL.

²¹ Note that these numbers are the maximum assigned to the licensee in any given region.

2.8 These TSAs correspond to local service areas in which Imagine previously operated under the 3.6 GHz Band FWALA licensing scheme prior to the Award. At the start of Transition immediately after the Award, all TSAs had a 20 km radius boundary around a defined centre point. As Transition has progressed, the area of some TSAs has been reduced to reflect completion of Transition Activities which affect only part of a TSA and to facilitate ongoing Transition Activities in the remainder of the TSA.

2.9 In addition to having a defined geographic area, TSAs are assigned frequency ranges which derive from the previous channel plan for 3.6 GHz Band FWALA licensing prior to the Award, which included a number or paired and unpaired channels. In many cases, the frequency ranges of Imagine's TSAs have reduced as Transition has progressed.

2.3 The Proposed Lease

- 2.10 Details of the Proposed Lease are set out in Annex 2 of Document 23/82 and readers are referred to same.
- 2.11 At a high level, the Proposed Lease entail Imagine leasing 20 MHz²² of Vodafone's spectrum at one location.
- 2.12 This location consists of an area of 20 km radius around an existing Imagine base station ("Proposed Lease Area" or "PLA").
- 2.13 The Proposed Lease Area are shown at **Figure 1** below.
- 2.14 The Proposed Lease is for three months. Accordingly, the following assessment has been conducted on the basis of the Proposed Lease having a three month overall duration.
- 2.15 The Proposed Lease does not entail any amendments to the conditions of the 3.6 GHz Band Liberalised Use Licences of Vodafone.

²² In the frequency range 3520 to 3540 MHz

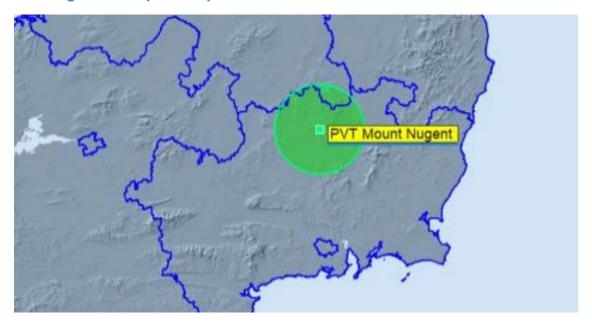


Figure 1: Map of Proposed Lease Area

2.4 Imagine's 3.6 GHz Band spectrum holdings following the Proposed Lease

- 2.16 The Proposed Lease would increase Imagine's 3.6 GHz Band spectrum holdings by 20 MHz in one unique PLA, relative to Imagine's holdings absent the Proposed Lease.
- 2.17 In this particular instance, ComReg has chosen to assess the likely impact of the Proposed Lease by reference to:
 - its assessment in Document 21/131 of the leases from Meteor and Vodafone to Imagine, which ComReg determined not to impact or distort competition;
 - its assessment in Document 22/64 of the leases from Meteor and Vodafone to Imagine which ComReg also determined not to impact or distort competition and
 - its assessment in Document 23/22 of the lease from Vodafone to Imagine which ComReg also determined not to impact or distort competition.
- 2.18 This is appropriate and conservative in this instance, as:

 the Proposed Lease represents a reduction in spectrum relative to the above leases (i.e. Imagine proposes to lease 20 MHz of spectrum from Vodafone which is less than the quantum of spectrum leased previously); and

- the only site proposed was among the three sites contained in ComReg's most recent determination (in Document 23/22).
- 2.19 Finally, ComReg notes that the previous lease does not form part of the assessment of the potential impacts of the Proposed Lease.
- 2.20 For these reasons, ComReg does not consider it necessary to conduct a detailed assessment of Imagine's current spectrum holdings for the PLA.

2.5 Assessment

- 2.21 By way of background, ComReg recalls that its guidelines for the determination of whether a spectrum transfer or lease would likely distort competition as set out in Chapter 3 Document 14/11R are to be interpreted and applied flexibly having regard to the specific circumstances of each case.²³ For example and other things being equal, a transfer or lease with prima facie greater potential to raise competition concerns (such as in terms of quantum of spectrum rights involved, the relative existing spectrum holdings of the notifying and other relevant parties before and following the proposed transfer or lease, and/or the duration of lease etc.), would likely involve a more exhaustive assessment of the matters identified in the guidelines, including a likely corresponding higher burden on the notifying parties in terms of the information required to inform such an assessment.
- 2.22 In the present matter, ComReg would particularly note the quite limited duration of the Proposed Lease (i.e. 3 months overall) and the relative spectrum holdings of the relevant parties (both pre- and post-lease).
- 2.23 In light of the above context, ComReg outlines out its assessment below.
- 2.24 **First**, and in the context of market definition, ComReg recalls paragraph 39 of Document 14/11R which states:

"It is not always necessary to reach a firm conclusion on market definition for example, where it is clear that the proposed spectrum transfer or lease is not likely to raise competition concerns on any reasonable definition of

²³ Paragraph 33 of Document 14/11R.

the market."

2.25 In the present case, it appears sufficient to consider the Proposed Lease in the narrow context of the relative distributions of holdings in the relevant spectrum band, noting, of course, the potential for other competitive constraints when viewed more broadly, such as in terms of alternative spectrum bands (e.g. fixed wireless access services provided using licence-exempt spectrum) and alternative technologies (e.g. mobile broadband and fixed broadband etc).

- 2.26 **Second**, and in that context, ComReg does not consider that the post-lease 3.6 GHz Band spectrum holdings of Imagine would be likely to distort competition noting, among other things:
 - that Imagine presently holds 60 MHz under its LU Licence out of a total of 350 MHz assigned in rural regions in the 3.6 GHz Band (or circa 17%), and further noting the service-and technology-neutral licensing of rights in this band;
 - the very short-term nature of the Proposed Lease (see further below); and
 - the overall quantum of spectrum Imagine would hold under the Proposed Lease is less than that was held by Imagine under the previous leases.
- 2.27 Furthermore, the very short-term nature of the Proposed Lease limits the potential for material competitive distortions to arise because, among other things:
 - the Proposed Lease is stated to be for use in providing FWA services to Imagine's pre-existing customers only;²⁴ and
 - the benefits to Imagine from the Proposed Lease (i.e. additional capacity and better quality of service) is short-lived, thereby reducing the ability and incentive to seek to increase its prices (or reduce its output) on foot of same without concern as to the reactions of its competitors and/or customers.
- 2.28 In addition, ComReg notes that it did not receive any submissions regarding its assessment of the previous leases and in respect of the Proposed Lease.
- 2.29 For the reasons outlined above, ComReg considers that the Proposed Lease would not be likely to distort competition and has determined that the Proposed Lease may be put into effect for a period of three months from 02/10/2023.

²⁴ See page 4 of the lease agreements between Imagine, in Annex 2 of ComReg Document 23/82.