



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

COVID-19: Further temporary spectrum management measures

Response to Consultation and Decision on a second further temporary licensing framework for spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz Bands

Response to Consultation, Decision and final Draft Regulations

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An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation

1 Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.
One Dockland Central, Guild Street, Dublin 1, Ireland, D01 E4X0.
Teil | Tel +353 1 804 9600 Suíomh | Web www.comreg.ie

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Chapter 1

1 Introduction

- 1.1 On 5 March 2021, ComReg published Document 21/16¹ in which it proposed to implement a second further temporary electronic communications service (“ECS”) licensing framework beyond 1 April 2021, given the temporary and extraordinary situation presented by COVID-19 and the significant increased traffic demands placed on wireless networks (see Section 2.3 of Document 21/16) arising from the Government measures to address same (see Section 2.2 of Document 21/16), (hereinafter termed the “Temporary Situation”) (the “Proposed Approach”).
- 1.2 ComReg received submissions from the following interested parties to Document 21/16:
- Eircom Limited and Meteor Mobile Communication Limited (trading as ‘eir’ and ‘open eir’) (“Eir”);
 - Imagine Communications Group (“Imagine”);
 - Three Ireland (Hutchison) Limited (“Three”); and
 - Vodafone Ireland Limited (“Vodafone”).
- 1.3 The non-confidential versions of these submissions are contained in Annex 4 of this document.
- 1.4 This document sets out ComReg’s response to consultation and final decision in respect of the Proposed Approach.

The need for temporary spectrum licences may dissipate over the coming year

- 1.5 As discussed in paragraphs 1.11 to 1.16 of Document 21/16, over the coming year the need for COVID-19 temporary spectrum licences may dissipate in light of:

¹ Document [21/16](#) “Covid-19: Temporary Spectrum Management Measures – Second further temporary spectrum rights in the 700 MHz Duplex, 2.1 GHz and 2.6 GHz Bands”, published 5 March 2021.

- first, the prospect of the exceptional circumstances underpinning the Proposed Approach beginning to dissipate over the year, noting the Government statements in the recently published ‘COVID-19 Resilience and Recovery 2021: The Path Ahead’² and subsequent commentary at the National Public Health Emergency Team (“NPHE”) briefing of 25 February as reported in the Irish Times³ (see Section 2.2. of Document 21/16); and
- second, that ComReg is progressing its Multi-Band Spectrum Award for the long-term assignment of spectrum rights of use in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands (“MBSA2”) (see Section 2.5 of Document 21/16), and the liberalisation of existing licences in the 2.1 GHz Band as provided for in Decision D11/20⁴ (“the MBSA2 Decision”).

1.6 Some updated information on the MBSA2 and COVID-19 Government measures is set out in Chapter 2 below.

1.7 In light of the above, ComReg remains of the view that:

- the need for temporary spectrum licences may dissipate over the coming year; and
- over the 6-month period of this further temporary spectrum licensing framework, it would be appropriate for the MNOs to plan for, and action as appropriate, steps to smoothly transition from any further temporary spectrum rights.

Structure of document

1.8 This document is structured as follows:

Chapter 2: sets out some background information relevant to this consultation, including updated information on the Government measures adopted in response to the COVID-19 crisis and some updated network traffic information;

² <https://www.gov.ie/en/publication/c4876-covid-19-resilience-and-recovery-2021-the-path-ahead/>

³ <https://www.irishtimes.com/news/health/covid-19-ireland-could-be-close-to-normal-by-end-of-year-says-dr-ronan-glynn-1.4495398>

⁴ See:

- ComReg Document No. [20/122](#), ComReg Decision D11/20; *Multi Band Spectrum Award - Response to Consultation and Decision - The 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands*, published 18 December 2020;
- ComReg Document No. [20/122a](#); *Multi Band Spectrum Award - DotEcon Report Assessment of responses to consultation on Draft Decision*, published 18 December 2020;
- ComReg Document No. [20/122b](#); *Multi Band Spectrum Award - A Report by Plum Consulting London LLP*, published 18 December 2020; and
- ComReg Document No. [20/122s](#); *Multi Band Spectrum Award - Updated Versions of Non-confidential Submissions to Document 19/124, 20/32 and 20/56*, published 18 December 2020.

Chapter 3: summarises ComReg's consideration in Document 21/16 on whether it would be appropriate in principle to provide for a second further temporary spectrum licensing framework in light of the Temporary Situation, the views of respondents and ComReg's assessment of same;

Chapter 4: summarises ComReg's proposals for a second further temporary spectrum licensing framework set out in Document 21/16, the views of respondents and ComReg's assessment of same;

Chapter 5: sets out ComReg's decision based on the views expressed by ComReg in the preceding chapters and their supporting annexes;

Chapter 6: outlines the next steps.

Annex 1: is a glossary of terms;

Annex 2: summarises ComReg's statutory functions, objectives and duties relevant to the management of Ireland's radio frequency spectrum;

Annex 3 sets out the Draft Regulations to facilitate the assignment of temporary spectrum rights of use by ComReg;

Annex 4: sets out the non-confidential submissions to Document 21/16.

Chapter 2

2 Background Information

2.1 In Chapter 2 of Document 21/16, ComReg set out some background information to its proposals, including:

- the COVID-19 Temporary Spectrum Licensing Frameworks implemented to date;
- the Government measures to address COVID-19;
- network traffic information since the adoption of the Government measures;
- consumer information;
- ComReg's MBSA2 project; and
- other supporting actions such as spectrum leasing.

2.2 In this chapter, ComReg sets out updated information relevant to this material.

2.1 COVID-19: Government's measures and vaccination plan

2.3 In relation to COVID-19 Government measures and vaccination plan, ComReg notes that the background information presented in Section 2.2 of Document 21/16 remains substantially unchanged with notable exceptions being that:

- recent newspaper reports suggest that key COVID-19 lockdown restrictions are expected to last until late May 2021⁵. This is circa 7 weeks longer than the 5 April 2021 date observed in Document 21/16; and
- the European Medicines Agency has recommended granting a conditional marketing authorisation for the Johnson & Johnson/Janssen COVID-19 vaccine⁶. This now means that there are four COVID-19 vaccines approved for use in the EU (Pfizer/BioNTech, Moderna, AstraZeneca and the Johnson & Johnson/Janssen vaccine).

⁵ <http://www.irishtimes.com/news/politics/covid-19-key-lockdown-restrictions-set-to-last-until-late-may-1.4506908>

⁶ <https://www.ema.europa.eu/en/news/ema-recommends-covid-19-vaccine-janssen-authorisation-eu>

2.2 ComReg network industry forum - network traffic

2.4 Since Document 21/16 was published, two additional weekly network performance reports were compiled on 8 and 15 March 2021, details of which are presented below.

Mobile Networks Aggregate Traffic Increase

2.5 Figure 1 below presents the updated aggregate monthly change in voice and data traffic volume on the mobile networks from April 2020 to March 2021.

2.6 For March 2021, the aggregate MNO voice and data traffic volume increases, of circa 7% and 66% respectively, remain at very similar levels to that of February 2021, and that these levels are notably greater than the pre-COVID-19 base levels, particularly for mobile data traffic.

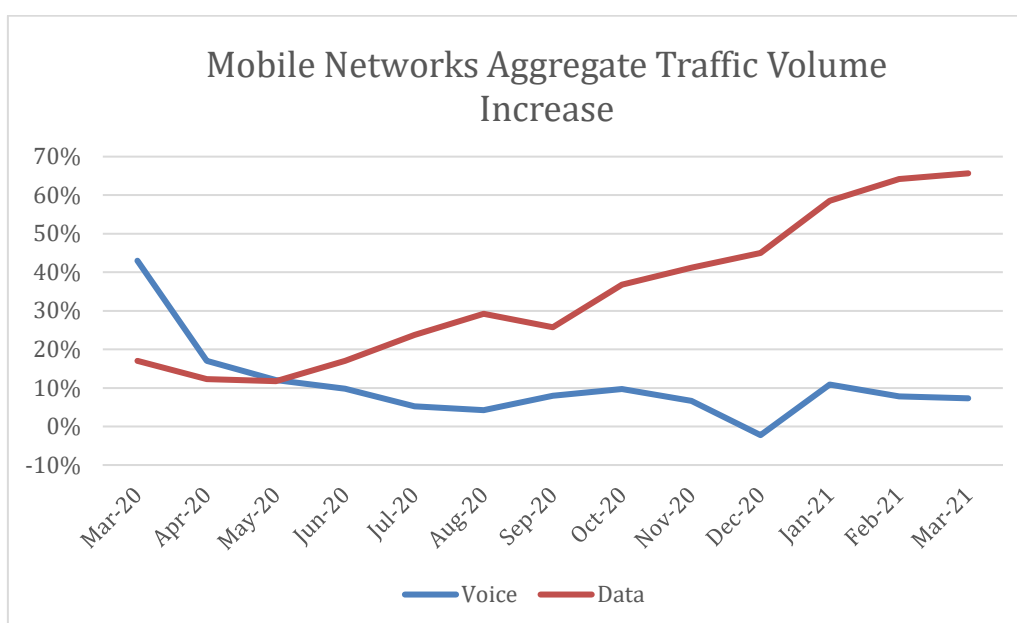


Figure 1: Mobile Networks Aggregate Traffic Volume Increase⁷

2.7 In relation to the most recent weekly network operator performance report, compiled on 15 March 2021, ComReg observes that the weekly aggregate voice and data traffic volume averaged across all mobile networks is circa 7% and 67% greater than the base pre-COVID-19 level, respectively. Further, each mobile network is experiencing an increase in traffic as detailed in Table 1 below.

⁷ Note that these are total traffic volume increases above a base level before the COVID-19 government restrictions were put in place in March 2020.

Table 1: Individual Mobile Network Operator traffic volume increases (data compiled on 15 March 2021) [REDACTED]⁸

MNO	Voice traffic increase	Data traffic increase
Meteor	[REDACTED]	[REDACTED]
Three	[REDACTED]	[REDACTED]
Vodafone	[REDACTED]	[REDACTED]

2.3 Updated ComReg Quarterly Key Data

2.8 Information from the latest ComReg Quarterly Key Data Report⁹ (to end December/Q4 2020) also indicates significant increases in total mobile voice and mobile data usage since the introduction of COVID-19 measures. ComReg also observes that for Q4 2020, and for the first time ever, the total mobile data traffic (both mobile and mobile dongle traffic) for a quarter decreased compared to the previous quarter¹⁰.

2.9 In relation to **voice minutes**: calls from mobiles had been relatively static for the previous 5 years, fluctuating within a range of 3 – 3.1 billion minutes, but increased to an all-time high of 3.74 billion minutes (19% increase year-on-year) in Q2 2020 before reducing slightly to 3.49 billion minutes (14% increase year-on-year) in Q4 2020.

2.10 In relation to **data usage**:

- mobile broadband (dongle/router) usage increased by 82% compared to the same period last year where previous annual increases were typically around 50 - 60%;
- fixed wireless data usage increased by 109% compared to the same period last year where previous annual increases were typically around 40 - 50%; and
- mobile data usage increased by around 30% compared to the same period last year where previous annual increases were typically around 30 - 35%.

2.4 MBSA2: The long-term assignment of spectrum rights

⁸ Note that these are total traffic volume increases above a base level before the COVID-19 government restrictions were put in place.

⁹ ComReg Document [21/20](#), "Quarterly Key Data Report – Q4 2020", published 11 March 2021.

¹⁰ In Q4 2020, the total mobile data traffic was 208,736,000 GB, compared to 211,573,000 GB in Q3 2020.

in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands

- 2.11 As set out in Section 2.5 of Document 21/16, ComReg is progressing the MBSA2 and the liberalisation of existing licences in the 2.1 GHz Band as provided for in the MBSA2 Decision, where paragraphs 38 and 39 of the Executive Summary to Document 20/122 state:
- *“38. Following this decision, ComReg will advance its response to consultation and **publication of the Information Memorandum during Quarter 1, 2021** which will commence the Award Process. The Information Memorandum, when published, will be an implementation of, and will reflect the Decision made in this document.*
 - *39. **Subsequently, ComReg will present the draft licensing regulations for the consent of the Minister** for the Environment, Climate and Communications. Following ministerial consent, ComReg will accept applications to the Award Process.” [emphasis added]*
- 2.12 In relation to the appeal of the MBSA2 Decision¹¹, Three’s appeal does not of itself affect the taking effect of the MBSA2 Decision or prevent action being taken to implement it and ComReg will oppose the appeal in full. Since Document 21/16 was published, Eir and Tesco Mobile were joined as notice parties to the appeal of the MBSA2 Decision.

2.5 Spectrum Leasing

- 2.13 From the weekly network information performance reports compiled by ComReg, data is also collected from the main fixed service providers. In respect of Imagine’s fixed wireless network, the weekly network operator performance report compiled on 15 March 2021 indicates that it experienced a data traffic volume increase of [✂ ██████████ ✂] compared to pre-COVID-19 levels (i.e. higher than that of the mobile networks).
- 2.14 In relation to spectrum leasing, since Document 21/16 was published:
- ComReg has received a notification from Imagine and Dense Air Limited proposing the lease of spectrum rights in the 3.6 GHz Band to Imagine for a period of six months. ComReg intends to publish this shortly.

¹¹ On 14 January 2021, Three Ireland (Hutchison) Limited and Three Ireland Services (Hutchison) Limited (collectively “Three”) lodged an appeal against the MBSA2 Decision to the High Court.

- Imagine has informed ComReg that it also hopes to extend the temporary spectrum leases with Eir and Vodafone which expire on 12 April 2021.

Chapter 3

3 Appropriateness of a second further temporary spectrum licensing framework

3.1 This chapter sets out ComReg’s final position on the appropriateness of implementing a second further COVID-19 temporary spectrum licensing framework given the Temporary Situation.

3.1 Summary of Document 21/16

3.2 In Chapter 3 of Document 21/16, ComReg set out its preliminary assessment on whether it would be appropriate to implement a second further COVID-19 temporary spectrum licensing framework given the Temporary Situation.

3.3 Section 3.1 outlined the key points from Document 21/05¹² wherein ComReg set out guidance regarding the information requirements and next steps in considering any second further temporary licensing framework beyond 1 April 2021. This included the submission of:

- (i) a joint or common request from MNOs to ComReg setting out specific details; and
- (ii) sufficiently detailed supporting information from each MNO based on the updated and prevailing COVID-19 considerations.

3.4 Section 3.2 set out the information submitted by the MNOs in support of their request for a second further temporary spectrum licensing framework and noted that:

- on 9 February 2021 (Eir) and 11 February (Vodafone and Three), the CEOs of the three MNOs each submitted a common letter to ComReg (the “MNO Common Letter”) where the MNOs “*jointly request that the terms of the current Temporary Spectrum Management Measures detailed in ComReg 20/88 (D08/20) are extended unchanged*”¹³; and

¹²ComReg Document [21/05](#), “COVID-19 Potential Further Temporary ECS Licensing – January 2021 update and next steps in considering any further temporary licensing framework”, published 21 January 2021.

¹³ Noting also that Eir, contrary to the MNO Common Letter, submits in its MNO-specific supporting information (as published in Annex 3 of Document 21/16), that “*The temporary licence regime should be seeking to minimise potential impacts on competition and we believe that Three’s temporary licence should limit liberalisation of its 3G licence to no more than 2x15MHz.*”

- each of the MNOs separately submitted the required information (identified at paragraph 32 of Document 21/05) in support of their common request.
- 3.5 Section 3.3 set out the views of other stakeholders, including noting that Imagine *“fully supports the further extension of the temporary ECS licensing beyond April 2021 for up to 3 months with the possibility of a renewal of up to a further 3 calendar months.”*
- 3.6 In section 3.4 of Document 21/16 (paragraph 3.29), ComReg observed several factors which support a second further temporary spectrum release, including that:
- Government measures to tackle COVID-19 pandemic will remain in place beyond 1 April 2021; and
 - these Government measures have resulted in increased mobile voice and data traffic (as shown in Figure 1 of Document 21/16).
- 3.7 Section 3.5 outlined ComReg’s preliminary assessment of whether a second further temporary spectrum licensing framework would be appropriate in principle and, in light of same, its preliminary view that the Proposed Approach would be in the best interests of consumers and unlikely to distort competition whilst being appropriate in the context of ComReg’s functions, objectives and duties, including being objectively justified and proportionate.

3.2 Views of respondents to Document 21/16

- 3.8 The respondents to Document 21/16 (namely the three MNOs and Imagine) are all supportive of ComReg’s proposals for a second further temporary spectrum licensing framework. For example:
- Eir submits that the rationale for making available temporary spectrum rights is well presented in Document 21/16;
 - Imagine submits that it expects that the elevated traffic levels due to COVID-19 will be sustained for some time to come;
 - Three submits that it seems that the Government restrictions will be only gradually removed, and therefore the need for temporary spectrum is on-going; and

- Vodafone submits that it expects growth in demand this year to be more than double that forecast pre-COVID and, absent an extension of the temporary spectrum rights, Vodafone would likely see a considerable increase in congested cells¹⁴ in its network and a degradation of service for all customers. Vodafone also submits that, on balance, ComReg's proposal to implement a temporary spectrum licensing framework for a period of up to six months will not materially distort competition.

3.9 In relation to the progressing of MBSA2, including the liberalisation of the existing licences in the 2.1 GHz band:

- Three submits that ComReg should proceed with the process to liberalise the existing licences in the 2.1 GHz band now, rather than requiring a series of temporary licences to provide for essentially the same thing. Three notes that the liberalisation of the existing licences in the 2.1 GHz band as provided for in the MBSA2 Decision and that this part of the MBSA2 Decision has not been the subject of the statutory appeal;
- Vodafone strongly agrees with ComReg's position that any extensions of the temporary spectrum rights are entirely without prejudice to MBSA2. It submits that completing MBSA2 is vital for the support of long-term investment in telecommunications in Ireland and that it *"will enable Vodafone to make long-term capital expenditure decisions, building additional coverage and bring new services to our customers. We see the completion of the auction as a facilitator for 5G, an important aspect of general economic and social development in Ireland for the foreseeable future."*

3.10 Vodafone also observes that some further extension of the temporary spectrum rights may be required past 1 October 2021, as it is unknown when or indeed whether traffic patterns will return to the pre-COVID distribution. Vodafone submits that it is still experiencing changes in network traffic not foreseen pre-COVID and not only has demand for mobile data services increased by much higher levels than forecast, but the geographic spread of demand has changed considerable during this emergency.

¹⁴ Vodafone submits that it is likely that greater than [✕ ■ ✕] of Vodafone's sites would experience congestion, resulting in reduced data rates or interrupted data services for many customers.

- 3.11 In relation to spectrum leasing, Imagine states that it hopes to agree a further six-month period of the respective leases with the MNOs and Dense Air, and would notify ComReg very shortly of these agreements for its consideration, while Vodafone noted that the additional network capacity released to mobile operators by the temporary spectrum rights facilitates its leasing of 3.6 GHz Band spectrum to fixed wireless operators, improving the services they can provide.
- 3.12 Eir makes a number of comments relating to the licensing proposal, which are discussed in Chapter 4.

3.3 ComReg's assessment of respondent's views

- 3.13 ComReg notes that all respondents support the proposal to put in place a second further temporary spectrum licensing framework in respect of the Temporary Situation for the reasons set out in Document 21/16, as well as on the basis of the additional information submitted as summarised above noting that no respondent raised concerns that the Proposed Approach would materially distort competition.
- 3.14 ComReg also observes that its proposal is also supported by the updated network traffic information outlined in Section 2.2 of this document, where the latest weekly aggregate mobile voice and data traffic levels show a circa 9% (voice) and 61% (data) traffic increase compared to the base pre-COVID-19 level. Notwithstanding this, ComReg also observes from Section 2.3 above, that for Q4 2020, and for the first time ever, the total mobile data traffic (both mobile and mobile dongle traffic) for a quarter decreased compared to the previous quarter¹⁵, which could suggest that a return to normal traffic levels is occurring.
- 3.15 In relation to MBSA2, ComReg notes:
- Vodafone's strong support for progressing MBSA2 to enable its long-term capital expenditure decisions, and its building of additional coverage and bringing new services to its customers; and
 - Three's submission to proceed now with the process to liberalise the existing licences in the 2.1 GHz band as provided for in the MBSA2 Decision, as this is not the subject of its appeal.

¹⁵ In Q4 2020, the total mobile data traffic was 208,736,000 GB, compared to 211,573,000 GB in Q3 2020.

- 3.16 In that regard, and as noted in Section 2.5 of Document 21/16, ComReg is currently progressing its preparations for MBSA2 in line with the next steps outlined in Document 20/122 (see, in particular, paragraphs 38 and 39 of the Executive Summary and Chapter 11).
- 3.17 The immediate next step in the MBSA2 process is the publication of the final Information Memorandum (“IM”) which, among other things, will include an updated indicative timetable for the award process. A subsequent step is presenting the draft licensing regulations for the consent of the Minister for the Environment, Climate and Communications.
- 3.18 Regarding Vodafone’s observation that some further extension of the temporary spectrum rights may be required past 1 October 2021. As noted in paragraph 4.34 of Document 21/16 and similar to ComReg’s approach in the Temporary Spectrum Licensing Frameworks implemented to date, ComReg would, of course, continue to monitor the situation over the term of the further licensing framework, including consideration of ongoing information provided by licensees and other operators (e.g. to the network industry forum) and other relevant information, to inform its approach to such matters. However, as has always been made clear in the previous temporary licensing frameworks, any need for such licences must be directly and demonstrably linked to significant increased traffic demands placed on wireless networks arising from Government measures to address the Temporary Situation.
- 3.19 In relation to spectrum leases in the 3.6 GHz Band, ComReg notes that Imagine and Dense Air have recently submitted a notification proposal to ComReg to lease spectrum rights in the 3.6 GHz Band to Imagine for a period of six months. ComReg observes that this 6-month duration would align with the duration of the temporary spectrum licensing framework as set out in Chapter 4 of this document ComReg also observes that Imagine hopes to extend the temporary spectrum leases with Eir and Vodafone which expire on 12 April 2021.

3.4 ComReg’s final position

- 3.20 Considering the above, and for the reasons outlined in Chapter 3 of Document 21/16, ComReg’s final position is that the Proposed Approach is in the best interests of consumers, unlikely to distort competition, whilst being appropriate in the context of ComReg’s functions, objectives and duties (including being objectively justified and proportionate).

Chapter 4

4 ComReg's licensing proposals

4.1 This chapter sets out ComReg's licensing proposals for a second further temporary spectrum licensing framework given the Temporary Situation.

4.1 Summary of Document 21/16

4.2 In Chapter 4 of Document 21/16, ComReg:

- provided a summary of the key licensing elements in the previous and current Temporary ECS Licensing Frameworks including: the spectrum bands, assignments and compatibility considerations; applicant eligibility and the supporting information requirements¹⁶; licence duration; fees; and coverage obligations;
- noted the MNOs joint request *“that the terms of the current Temporary Spectrum Management Measures detailed in ComReg 20/88 (D08/20) are extended unchanged.”*¹⁷;
- set out information on the views of other stakeholders (Imagine, Virgin Media, 2RN and the IAA) which, in summary, supported the maintenance of the existing licence conditions in any further framework; and
- outlined its preliminary assessment on the material received from the MNOs and its preliminary view that any second further Temporary ECS Licencing framework should employ the same licensing conditions as currently used, save for relevant updates to the technical conditions for the 2.1 GHz and 2.6 GHz bands to take account of the 2020 amending EC decisions for these bands.^{18,19}

¹⁶ See Section 4.1.2 of Document 21/16

¹⁷ In addition, ComReg noted Eir's submission in its MNO-specific supporting information that *“[t]he temporary licence regime should be seeking to minimise potential impacts on competition and we believe that Three's temporary licence should limit liberalisation of its 3G licence to no more than 2x15MHz.”*

¹⁸ EU 2020/667 amending Decision 2012/688/EU as regards an update of relevant technical conditions applicable to the frequency bands 1920 - 1980 MHz and 2110 - 2170 MHz.

¹⁹ EU 2020/636 amending Decision 2008/477/EC as regards an update of relevant technical conditions applicable to the 2500 – 2690 MHz frequency band.

4.2 Views of respondents

- 4.3 As noted in Chapter 4, all four respondents support ComReg’s licensing proposals, although Eir raised specific comments in relation to the potential use of temporary spectrum rights for 5G purposes, and coverage obligations, as outlined below.

Coverage obligation

- 4.1 In relation to the proposed obligation to provide outdoor coverage on a best-efforts basis at specific locations as may be determined by the Government, Eir, similar to its previous submission to Document 20/86R, requests that, should this element be activated, then as much advance notice as possible should be given in respect of the location of temporary emergency facilities to facilitate the deployment of sufficient fixed and mobile network capacity.

The use of temporary spectrum rights for 5G purposes

- 4.2 While Eir notes paragraph 4.28 of Document 21/16 which states *that “MNOs can utilise the 700 MHz Duplex where they have existing equipment and use the 2.1 GHz Band for 4G use at certain sites to assist in dealing with the increase in data traffic”* [emphasis added], it also notes paragraph 4.30²⁰ of Document 21/16 which seems to suggest to Eir that 5G use may be permissible in the 2.1 GHz and 2.6 GHz bands. Eir therefore requests that ComReg clarify the status of 5G use in the temporary spectrum rights.

4.3 ComReg assessment of respondents’ views

- 4.3 ComReg firstly observes the broad support for ComReg’s licensing proposals as set out in Document 21/16.

Coverage obligation

- 4.4 In relation to Eir’s request, ComReg confirms that it will endeavour to immediately notify licensees of any specific locations as may be determined from time to time by the Government and communicated to ComReg by the Department of Environment, Climate and Communications (“DECC”). However, any notice in advance of this is ultimately a matter for the Government and DECC.

²⁰ Paragraph 4.30 “While the purpose of the temporary spectrum rights is to provide capacity for immediate use using existing infrastructure and not enabling new technologies or 5G, it is also the case that the above EU decisions are applicable and ComReg therefore proposes to update the relevant technical conditions of the 2.1 GHz and 2.6 GHz bands to reflect the above EC Decisions for these bands.”

The use of temporary spectrum rights for 5G purposes

4.5 In relation to Eir's request that ComReg clarify the status of 5G use in the temporary spectrum rights, ComReg reminds all operators that:

- the purpose of the temporary spectrum rights is to provide capacity for immediate use using existing infrastructure and not enable new technologies or 5G²¹; and
- “[w]hile recognising that the temporary spectrum rights provide MNOs some flexibility to install or redeploy equipment and to continue with their existing network upgrade plans, ComReg reiterates that the temporary spectrum rights should not be used as a mechanism for large scale deployments not previously planned.” [Emphasis added] (source paragraph 3.29 of Document 20/86R).

4.4 ComReg's final view

4.6 Considering the above, and ComReg's reasoning as set out in Chapter 4 of Document 21/16, ComReg's final position is that the second further Temporary ECS Licencing framework should have the same licensing conditions as currently used in the Existing Temporary ECS Licensing Framework, save for the relevant updates to the technical conditions for the 2.1 GHz and 2.6 GHz bands to take account of the 2020 amending EC decisions for these bands.

4.7 Details of this licensing framework are outlined in the draft Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No. 2) Regulations set out in Annex 3.

²¹ Regulation 4(2) of the Draft Regulations sets out a number of factors that ComReg will have regard to when granting a Licence, including:

“(c) available information regarding how the rights of use of radio frequencies applied for by the Undertaking would reasonably and materially assist in alleviating the capacity constraints identified in connection with sub-paragraph (b), including the lead time for the Undertaking to effectively make use of such rights of use of radio frequencies.” (emphasis added)

Chapter 5

5 Decision

This chapter sets out ComReg's decision document based on the views expressed by ComReg in the preceding chapters and their supporting annexes.

Decision

1. DEFINITIONS AND INTERPRETATION

1. In this Decision, save where the context otherwise admits or requires:

“2.1 GHz Band” means radio frequency spectrum in the range 1920 to 1980 MHz paired with radio frequency spectrum in the range 2110 to 2170 MHz;

“2.1 GHz Band Block” means a 5 MHz paired block of radio frequency spectrum in the 2.1 GHz Band;

“2.1 GHz Band EC Decision” means European Commission Decision 2012/688/EC²² as amended by European Commission Decision 2020/667²³;

“2.6 GHz Band” means radio frequency spectrum in the range 2500 to 2690 MHz;

“2.6 GHz Band EC Decision” means European Commission Decision 2008/477/EC²⁴ as amended by European Commission Decision 2020/636/EU²⁵;

“2.6 GHz Band FDD Block” means a 5 MHz block of radio frequency spectrum in the range 2500 to 2570 MHz paired with a 5 MHz block of radio frequency spectrum in the range 2620 to 2690 MHz;

“2.6 GHz Band TDD Fixed Frequency Block (Lower)” means the 5 MHz unpaired block of radio frequency spectrum in the range 2570 to 2575 MHz;

“2.6 GHz Band TDD Fixed Frequency Block (Upper)” means a 5 MHz unpaired block of radio frequency spectrum in the range 2615 to 2620 MHz;

²² Commission Implementing Decision of 5 November 2012 on the harmonisation of the frequency bands 1920 - 1980 MHz and 2110 - 2170 MHz for terrestrial systems capable of providing electronic communications services in the Union.

²³ Commission Implementing Decision (EU) 2020/667 of 6 May 2020 amending Decision 2012/688/EU as regards an update of relevant technical conditions applicable to the frequency bands 1920 – 1980 MHz and 2110 – 2170 MHz.

²⁴ Commission Decision of 13 June 2008 on the harmonisation of the 2500 - 2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community.

²⁵ Commission Implementing Decision (EU) 2020/636 of 8 May 2020 amending Decision 2008/477/EC as regards an update of relevant technical conditions applicable to the 2500 – 2690 MHz frequency band.

“2.6 GHz Band TDD Frequency Generic Block” means a 5 MHz unpaired block of radio frequency spectrum in the range 2575 to 2615 MHz;

“2.6 GHz Band Blocks” means the 2.6 GHz Band FDD Blocks and the 2.6 GHz Band TDD Blocks;

“2.6 GHz Band TDD Blocks” means the 2.6 GHz Band TDD Fixed Frequency Block (Lower), 2.6 GHz Band TDD Fixed Frequency Block (Upper) and 2.6 GHz Band TDD Frequency Generic Blocks;

“700 MHz Duplex” means radio frequency spectrum in the range 703 – 733 MHz paired with 758 – 788 MHz;

“700 MHz Duplex Block” means a right of use in respect of a 2 × 5 MHz block of spectrum in the 700 MHz Duplex;

“700 MHz EC Decision” means Decision (EU) 2016/687²⁶;

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

“Communications Regulation Act 2002” means the Communications Regulation Act, 2002, (No. 20 of 2002), as amended;

“ComReg” means the Commission for Communications Regulation, established under section 6 of the Communications Regulation Act 2002;

“Electronic Communications Network” and **“Electronic Communications Service”** have the meanings assigned to them in the Framework Regulations;

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

“Further Temporary ECS Licence (No. 2)” means a licence of the type set out in draft form in Schedule 1 to the Further Temporary ECS Licence Regulations (No.2);

“Further Temporary ECS Licence Regulations (No. 2)” means the Wireless Telegraphy (FURTHER TEMPORARY ELECTRONIC COMMUNICATIONS SERVICES LICENCES) (No. 2) Regulations, 2021, as set out in draft form in Annex 3 to ComReg Document 21/24;

“Minister” means the Minister for the Environment, Climate and Communications;

²⁶ Commission Implementing Decision of 28 April 2016 on the harmonisation of the 694-790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the Union.

“**MNO**” means a mobile network operator with an existing network in Ireland;

“**Relevant Spectrum**” means 700 MHz Duplex Blocks, 2.1 GHz Band Blocks, and 2.6 GHz Band Blocks;

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

“**Wireless Telegraphy Act 1926**” means the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as amended.

2. DECISION-MAKING CONSIDERATIONS

2. In arriving at its decisions in this document, ComReg has had regard to:

- i. the contents of, and the materials and reasoning referred to in, as well as the materials provided by respondents in connection with, the below-listed ComReg documents:
 - a) 18/60, 19/59R, 19/124 and 20/122 (insofar as they are relevant to the present decisions and, in particular, concerning the technical licence conditions for the Relevant Spectrum);
 - b) 20/21;
 - c) 20/23;
 - d) 20/27;
 - e) 20/64;
 - f) 20/86R;
 - g) 20/88;
 - h) 21/05;
 - i) 21/16; and
 - j) 21/24.
- ii. the consultants’ reports commissioned, and the advice obtained by ComReg, in relation to the subject-matter of the documents and materials listed above (insofar as they are relevant to the present decisions and, in particular, concerning the technical licence conditions for the Relevant Spectrum) and, in particular, ComReg documents 19/59c, 19/124c and 20/122b;
- iii. the powers, functions, objectives and duties of ComReg, including, without limitation those under and by virtue of:
 - a) the Communications Regulation Act 2002, and, in particular, sections 10, 12 and 13 thereof;

- b) the Framework Regulations, and, in particular, Regulations 13, 16 and 17 thereof;
- c) the Authorisation Regulations, and, in particular, Regulations 9, 10, 11, 12, 15, 16, 17, 18(1)(c) and 19 thereof;
- d) the 2.1 GHz Band EC Decision;
- e) the 2.6 GHz Band EC Decision;
- f) the 700 MHz EC Decision;
- g) Sections 5 and 6 of the Wireless Telegraphy Act, 1926; and
- h) the applicable Policy Directions made by the Minister under section 13 of the Communications Regulation Act 2002,

and, noting that it has:

- i) given all interested parties the opportunity to express their views and make their submissions in accordance with Regulation 11 of the Authorisation Regulations and Regulation 12 of the Framework Regulations,

as set out in the various chapters of Document 21/24 and their supporting annexes.

3. DECISIONS

3. Having had regard to the above considerations, ComReg has decided:

- i. subject to obtaining the consent of the Minister to the making by it of the Further Temporary ECS Licence Regulations (No. 2), to make those regulations under section 6 of the Wireless Telegraphy Act 1926, prescribing relevant matters in relation to Further Temporary ECS Licence (No. 2), including prescribing the form of the licences concerned, their duration and the conditions and restrictions subject to which they are granted;

700MHz Duplex and 2.1GHz Bands

- ii. upon application properly being made to it by MNOs for Further Temporary ECS Licences (No. 2) with rights of use in the 700 MHz Duplex and 2.1 GHz Bands;
 - a) to select which MNOs will be granted Further Temporary ECS Licences (No. 2) in the 700 MHz Duplex and 2.1 GHz bands having regard to the principles generally described in Chapter 4 of

Document 21/16 and further particularised in the Further Temporary ECS Licence Regulations (No. 2), as made, and the material provided by applicants in support of their respective application, including the ability of the applicant to deliver services expeditiously using those rights of use; to assign 2 x 10 MHz of 700 MHz Duplex to each MNO²⁷, but where ComReg reserves the right to make alternative assignments in line with its statutory objectives and duties;

- b) to grant Further Temporary ECS Licence (No. 2), under section 5 of the Wireless Telegraphy Act 1926 to such MNOs for the periods, and subject to the conditions and restrictions (including conditions as to suspension and withdrawal), prescribed in the Further Temporary ECS Licence Regulations (No. 2), including the schedule which sets out the form of a Further Temporary ECS Licence (No. 2), as currently set out in draft form in Annex 3 of Document 21/24;

2.6 GHz Band

- iii. upon application properly being made to it by an Undertaking for a Further Temporary ECS Licence (No. 2) in respect of 2.6 GHz Band Blocks, and following consultation with the Irish Aviation Authority;
- a) to select which MNOs will be granted a Further Temporary ECS Licence (No. 2) with 2.6 GHz Band Blocks having regard to the principles generally described in Chapter 4 of Document 21/16 and further particularised in the Further Temporary ECS Licence Regulations (No. 2), as made, and the material provided by applicants in support of their respective application; in particular, the proposed location of sites and confirmation that they will comply with the requirement to protect Aeronautical Primary Radars, if the aggregate demand for 2.6 GHz Band Blocks exceeds the amount available, ComReg shall decide the number of 2.6 GHz Band Blocks (if any) to award to each applicant, based on, among other things, the ability of the applicant to deliver services expeditiously using those rights of use;
- b) to grant Further Temporary ECS Licences (No. 2), under section 5 of the Wireless Telegraphy Act 1926 to such MNOs, where spectrum rights shall be assigned on a site by site basis, for the

²⁷ Specifically:

- Eir: 703 to 713 MHz paired with 758 to 768 MHz;
- Three: 713 to 723 paired with 768 to 778 MHz; and
- Vodafone: 723 to 733 paired with 778 to 788 MHz.

periods, and subject to the conditions and restrictions (including conditions as to suspension and withdrawal), prescribed in the Further Temporary ECS Licence Regulations (No. 2), including the schedule which sets out the form of a Further Temporary ECS Licence (No. 2), as currently set out in draft form in Annex 3 of Document 21/24;

- c) to consider applications for the addition of sites to a Further Temporary ECS Licence (No. 2) granted in respect of rights of use in the 2.6 GHz Band Blocks from time to time on a first come, first served basis;

Licence Duration

- iv. to make the duration of a Further Temporary ECS Licence (No. 2) up to but no longer than 3 calendar months;
- v. upon application properly being made to it, having regard to the principles generally described in Chapter 4 of Document 21/16 and further particularised in the Further Temporary ECS Licence Regulations (No. 2), and the material provided by applicants in support of their renewal, to renew a Further Temporary ECS Licence (No. 2) for a further period of up to but no longer than 3 calendar months; and
- vi. that any Further Temporary ECS Licence (No. 2) granted or renewed shall in any event expire on 1 October 2021.

4. STATUTORY POWERS NOT AFFECTED

- 4. Nothing in this document shall operate to limit ComReg in the exercise of its discretions or powers, or the performance of its functions or duties, or the attainment of objectives under any laws applicable to ComReg from time to time.

Chapter 6

6 Next steps

- 6.1.1 Document 21/24a published alongside this document contains an Application Form for a Further Temporary ECS Licence (No.2). This will be published on ComReg's website as an editable PDF file.
- 6.2 ComReg intends, in the coming days, to seek the consent of the Minister for Environment, Climate and Communications to make the Further Temporary ECS Licence Regulations (No.2).
- 6.3 Applicants can submit a completed Application Form to ComReg (together with supporting information and payment of the applicable fee) to the email address below as soon as ready. ComReg will process applications once the Further Temporary ECS Licence Regulations (No.2) are made.
- 6.4 Applicants should send their completed application form to:
- licensing@comreg.ie
- 6.5 If ComReg receives correspondence on matters relating to this document and the consultation process generally, ComReg hereby gives notice that it will publish all material correspondence received in this regard subject to the provisions of ComReg's guidelines on the treatment of confidential information²⁸.

²⁸ ComReg Document 05/24 - Response to Consultation - Guidelines on the treatment of confidential information – Published 22 March 2005.

Annex: 1 Glossary

A1.1 Definitions

- A 1.1 The definitions in this glossary shall apply to this document as a whole.
- 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 Terms defined in this consultation paper shall, unless the context otherwise requires or admits, have the meaning set out below:

3.6 GHz Band	The radio frequency spectrum in the range 3400 MHz to 3800 MHz.
700 MHz Duplex	The frequency range 703-733 MHz paired with 758-788 MHz.
2.1 GHz Band	The frequency ranges 1920-1980 MHz paired with 2110-2170 MHz
2.6 GHz Band	The frequency range 2500 – 2690 MHz.
Aeronautical Primary Radars	Means apparatus (including “Star 2000” and “TA10” models) providing primary aircraft detection used in airport surveillance networks at Dublin, Cork and Shannon airports.
Application Form	ComReg Document 21/24a.
COVID-19	COVID-19 is an illness that can affect your lungs and airways and is caused by a virus called SARS-CoV-2 (2019-nCoV) coronavirus.

Existing Temporary Licensing Framework	ECS	Means the Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) Regulations 2020 (S.I. No. 407 of 2020).
Further Temporary Licence Regulations (No.2)	ECS	Means the draft regulations as set out in Annex 3 of this document.
IM		The Information Memorandum ComReg intends to publish detailing the processes and procedures ComReg will employ in conducting the MBSA2.
MBSA2		ComReg's Multi-Band Spectrum Award project for the long-term assignment of spectrum rights of use in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands Further information is available at https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/proposed-multi-band-spectrum-award/
MBSA2 Decision		Decision D11/20 as published in Document 20/122.
Proposed Approach		ComReg's consideration of the approach as set out in this Document.
SAF		Spectrum Access Fee.
SUF		Spectrum Usage Fee.
Temporary Situation		Means the temporary impact upon electronic communications networks and services from the extraordinary situation arising from the spread of the disease known as COVID-19.

A1.2 European and Governmental Bodies, Regulatory and Standardisation Organisations

ComReg	Commission for Communications Regulation
DECC	Department of the Environment, Climate and Communications
EC	European Commission
EU	European Union
IAA	Irish Aviation Authority
ITU	International Telecommunication Union

A1.3 Primary and Secondary Legislation and EC Decisions

S.I.	Statutory Instrument
EC Decision 2008/477/EC	European Commission Decision on the harmonisation of the 2500 - 2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community as amended by European Commission Decision 2020/636/EU ²⁹

A1.4 Glossary of Technical Terms

3G	Third Generation Mobile System (e.g. UMTS)
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²⁹ Commission Implementing Decision (EU) 2020/636 of 8 May 2020 amending Decision 2008/477/EC as regards an update of relevant technical conditions applicable to the 2500 – 2690 MHz frequency band.

ECS	Electronic Communications Service as defined under the Framework Regulations
GHz	Gigahertz (1 000 000 000 Hertz)
Hertz	Unit of Frequency
kHz	Kilohertz (1 000 Hertz)
LTE	Long Term Evolution of 3G
MHz	Megahertz (1 000 000 Hertz)
MNO	Mobile Network Operator
UMTS	Universal Mobile Telecommunications System.

Annex: 2 Legal Framework and Statutory Objectives

- A 2.1 The Communications Regulation Act 2002 (as amended by the Communications Regulation (Amendment) Act 2007) (the “2002 Act”), the EU Common Regulatory Framework (including the Framework and Authorisation Directives³⁰ as transposed into Irish law by the corresponding Framework and Authorisation Regulations³¹), and the Wireless Telegraphy Acts 1926 to 2009³² set out, amongst other things, powers, functions, duties and objectives of ComReg that are relevant to the management of the radio frequency spectrum in Ireland and to this consultation document.
- A 2.2 Apart from licensing and making regulations in relation to licences, ComReg’s functions include the management of Ireland’s radio frequency spectrum in accordance with ministerial Policy Directions under section 13 of the 2002 Act, having regard to its objectives under section 12 of the 2002 Act, Regulation 16 of the Framework Regulations and the provisions of Article 8a of the Framework Directive. ComReg is to carry out its functions effectively, and in a manner serving to ensure that the allocation and assignment of radio frequencies is based on objective, transparent, non-discriminatory and proportionate criteria.
- A 2.3 This annex is intended as a general guide as to ComReg’s role in this area, and not as a definitive or exhaustive legal exposition of that role. Further, this annex restricts itself to consideration of those powers, functions, duties and objectives of ComReg that appear most relevant to the matters at hand and generally excludes those not considered relevant (for example, in relation to postal services, premium rate services or market analysis). For the avoidance of doubt, however, the inclusion of particular material in this annex does not necessarily mean that ComReg considers same to be of specific relevance to the matters at hand.

³⁰ Directive No. 2002/21/EC of the European Parliament and of the Council of 7 March 2002 (as amended by Regulation (EC) No. 717/2007 of 27 June 2007, Regulation (EC) No. 544/2009 of 18 June 2009 and Directive 2009/140/EC of the European Parliament and Council of 25 November 2009) (the “Framework Directive”) and Directive No. 2002/20/EC of the European Parliament and of the Council of 7 March 2002 (as amended by Directive 2009/140/EC) (the “Authorisation Directive”).

³¹ The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) and the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011) respectively.

³² The Wireless Telegraphy Acts 1926 to 1988 and Sections 181 (1) to (7) and (9) and Section 182 of the Broadcasting Act 2009.

A 2.4 All references in this annex to enactments are to the enactment as amended at the date hereof, unless the context otherwise requires.

New European Electronic Communications Code

A 2.5 On 20 December 2018, Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (“EECC”) entered into force. The EECC replaces the EU Common Regulatory Framework adopted in 2002 (and amended in 2009) under which ComReg has regulated electronic communications since 2003.

A 2.6 With some limited exceptions (see Article 124 of the EECC), Member States had until 21 December 2020 to transpose the EECC into national law³³. The DECC is responsible for the transposition of the EECC and ComReg has assisted the DECC in that regard as appropriate.

A 2.7 ComReg understands that the EECC is unlikely to be transposed into national law until at least Q2 2021. However, for the avoidance of doubt, electronic communications providers must continue to comply with their obligations, ComReg will continue to regulate the electronic communications sector under its existing powers, and redress mechanisms for customers will continue unchanged until new legislation is introduced.

A 2.8 Notwithstanding, and for the avoidance of doubt, ComReg is satisfied that, to the best of its knowledge, the granting of Temporary ECS Licences for the purposes of the Temporary Situation, and under the conditions described in this document, would not conflict with the objectives of the EECC or the obligations likely to be imposed on ComReg under national legislation implementing same.

A2.1 Primary Objectives and Regulatory Principles under the 2002 Act and Common Regulatory Framework

A 2.9 ComReg’s primary objectives in carrying out its statutory functions in the context of electronic communications are to:

- promote competition³⁴;
- contribute to the development of the internal market³⁵;

³³ With the exception of Articles 53(2), (3) and (4), and Article 54 (See Article 124).

³⁴ Section 12 (1)(a)(i) of the 2002 Act.

³⁵ Section 12 (1)(a)(ii) of the 2002 Act.

- promote the interests of users within the Community³⁶;
- ensure the efficient management and use of the radio frequency spectrum in Ireland in accordance with a direction under section 13 of the 2002 Act³⁷; and
- unless otherwise provided for in Regulation 17 of the Framework Regulations, take the utmost account of the desirability of technological neutrality in complying with the requirements of the Specific Regulations³⁸ in particular those designed to ensure effective competition³⁹.

A2.1.1 Promotion of Competition

A 2.10 Section 12(2)(a) of the 2002 Act requires ComReg to take all reasonable measures which are aimed at the promotion of competition, including:

- ensuring that users, including disabled users, derive maximum benefit in terms of choice, price and quality;
- ensuring that there is no distortion or restriction of competition in the electronic communications sector; and
- encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources.

A 2.11 In so far as the promotion of competition is concerned, Regulation 16(1)(b) of the Framework Regulations also requires ComReg to:

- ensure that elderly users and users with special social needs derive maximum benefit in terms of choice, price and quality, and

³⁶ Section 12(1)(a)(iii) of the 2002 Act.

³⁷ Section 12(1)(b) of the 2002 Act. Whilst this objective would appear to be a separate and distinct objective in the 2002 Act, it is noted that, for the purposes of ComReg's activities in relation to electronic communications networks and services ("ECN" and "ECS"), Article 8 of the Framework Directive identifies "*encouraging efficient use and ensuring the effective management of radio frequencies (and numbering resources)*" as a sub-objective of the broader objective of the promotion of competition.

³⁸ The 'Specific Regulations' comprise collectively the Framework Regulations, the Authorisation Regulations, the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011), the European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations 2011 (S.I. 337 of 2011) and the European Communities (Electronic Communications Networks and Services) (Privacy and Electronic Communications) Regulations 2011 (S.I. No. 336 of 2011).

³⁹ Regulation 16(1)(a) of the Framework Regulations.

- ensure that, in the transmission of content, there is no distortion or restriction of competition in the electronic communications sector.

A 2.12 Regulation 9(11) of the Authorisation Regulations also provides that ComReg must ensure that radio frequencies are efficiently and effectively used having regard to section 12(2)(a) of the 2002 Act and Regulations 16(1) and 17(1) of the Framework Regulations. Regulation 9(11) further provides that ComReg must ensure that competition is not distorted by any transfer or accumulation of rights of use for radio frequencies and, for this purpose, ComReg may take appropriate measures such as mandating the sale or the lease of rights of use for radio frequencies.

A2.1.2 Contributing to the Development of the Internal Market

A 2.13 Section 12(2)(b) of the 2002 Act requires ComReg to take all reasonable measures which are aimed at contributing to the development of the internal market, including:

- removing remaining obstacles to the provision of ECN, ECS and associated facilities at Community level;
- encouraging the establishment and development of trans-European networks and the interoperability of transnational services and end-to-end connectivity; and
- co-operating with electronic communications national regulatory authorities in other Member States of the Community and with the Commission of the Community in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of Community law in this field.

A 2.14 In so far as contributing to the development of the internal market is concerned, Regulation 16(1)(c) of the Framework Regulations also requires ComReg to co-operate with the Body of European Regulators for Electronic Communications (“BEREC”) in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of EU law in the field of electronic communications.

A2.1.3 Promotion of Interests of Users

A 2.15 Section 12(2)(c) of the 2002 Act requires ComReg, when exercising its functions in relation to the provision of electronic communications networks and services, to take all reasonable measures which are aimed at the promotion of the interests of users within the Community, including:

- ensuring that all users have access to a universal service;
- ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;
- contributing to ensuring a high level of protection of personal data and privacy;
- promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available ECS;
- encouraging access to the internet at reasonable cost to users;
- addressing the needs of specific social groups, in particular disabled users; and
- ensuring that the integrity and security of public communications networks are maintained.

A 2.16 In so far as promotion of the interests of users within the EU is concerned, Regulation 16(1)(d) of the Framework Regulations also requires ComReg to:

- address the needs of specific social groups, in particular, elderly users and users with special social needs, and
- promote the ability of end-users to access and distribute information or use applications and services of their choice.

A2.1.4 Regulatory Principles

A 2.17 In pursuit of its objectives under Regulation 16(1) of the Framework Regulations and section 12 of the 2002 Act, ComReg must apply objective, transparent, non-discriminatory and proportionate regulatory principles by, amongst other things:

- promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods;
- ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing ECN and ECS;
- safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition;

- promoting efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, while ensuring that competition in the market and the principle of non-discrimination are preserved;
- taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State; and
- imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled.

A2.1.5 Other Obligations under the 2002 Act

A 2.18 In carrying out its functions, ComReg is required, amongst other things, to:

- seek to ensure that any measures taken by it are proportionate having regard to the objectives set out in section 12 of the 2002 Act;⁴⁰
- have regard to international developments with regard to the radio frequency spectrum⁴¹; and
- take the utmost account of the desirability that the exercise of its functions aimed at achieving its radio frequency management objectives does not result in discrimination in favour of or against particular types of technology for the provision of ECS.⁴²

A2.1.6 Policy Directions⁴³

A 2.19 Section 12(4) of the 2002 Act provides that, in carrying out its functions, ComReg must have appropriate regard to policy statements, published by or on behalf of the Government or a Minister of the Government and notified to the Commission, in relation to the economic and social development of the State.

⁴⁰ Section 12(3) of the 2002 Act.

⁴¹ Section 12(5) of the 2002 Act.

⁴² Section 12(6) of the 2002 Act.

⁴³ ComReg also notes, and takes due account of, the Spectrum Policy Statement issued by the Department of Communications Energy and Natural Resources in September 2010.

Section 13(1) of the 2002 Act requires ComReg to comply with any policy direction given to ComReg by the Minister for Communications, Energy and Natural Resources (“the Minister”) as he or she considers appropriate, in the interests of the proper and effective regulation of the electronic communications market, the management of the radio frequency spectrum in the State and the formulation of policy applicable to such proper and effective regulation and management, to be followed by ComReg in the exercise of its functions. Section 10(1)(b) of the 2002 Act also requires ComReg, in managing the radio frequency spectrum, to do so in accordance with a direction of the Minister under section 13 of the 2002 Act, while Section 12(1)(b) requires ComReg to ensure the efficient management and use of the radio frequency spectrum in accordance with a direction under Section 13.

A 2.20 The Policy Directions which are most relevant in this regard include the following:

Policy Direction No.3 on Broadband Electronic Communication Networks

A 2.21 ComReg shall in the exercise of its functions, take into account the national objective regarding broadband rollout, viz, the Government wishes to ensure the widespread availability of open-access, affordable, always-on broadband infrastructure and services for businesses and citizens on a balanced regional basis within three years, on the basis of utilisation of a range of existing and emerging technologies and broadband speeds appropriate to specific categories of service and customers.

Policy Direction No.4 on Industry Sustainability

A 2.22 ComReg shall ensure that in making regulatory decisions in relation to the electronic communications market, it takes account of the state of the industry and in particular the industry’s position in the business cycle and the impact of such decisions on the sustainability of the business of undertakings affected.

Policy Direction No.5 on Regulation only where necessary

A 2.23 Where ComReg has discretion as to whether to impose regulatory obligations, it shall, before deciding to impose such regulatory obligations on undertakings, examine whether the objectives of such regulatory obligations would be better achieved by forbearance from imposition of such obligations and reliance instead on market forces.

Policy Direction No.6 on Regulatory Impact Assessment

A 2.24 ComReg, before deciding to impose regulatory obligations on undertakings in the market for electronic communications or for the purposes of the

management and use of the radio frequency spectrum or for the purposes of the regulation of the postal sector, shall conduct a Regulatory Impact Assessment in accordance with European and International best practice and otherwise in accordance with measures that may be adopted under the Government's Better Regulation programme.

Policy Direction No.7 on Consistency with other Member States

- A 2.25 ComReg shall ensure that, where market circumstances are equivalent, the regulatory obligations imposed on undertakings in the electronic communications market in Ireland should be equivalent to those imposed on undertakings in equivalent positions in other Member States of the European Community.

Policy Direction No.11 on the Management of the Radio Frequency Spectrum

- A 2.26 ComReg shall ensure that, in its management of the radio frequency spectrum, it takes account of the interests of all users of the radio frequency spectrum.

General Policy Direction No.1 on Competition (2004)

- A 2.27 ComReg shall focus on the promotion of competition as a key objective. Where necessary, ComReg shall implement remedies which counteract or remove barriers to market entry and shall support entry by new players to the market and entry into new sectors by existing players. ComReg shall have a particular focus on:

- market share of new entrants;
- ensuring that the applicable margin attributable to a product at the wholesale level is sufficient to promote and sustain competition;
- price level to the end user;
- competition in the fixed and mobile markets; and
- the potential of alternative technology delivery platforms to support competition

A2.2 Other Relevant Obligations under the Framework and

Authorisation Regulations

A2.2.1 Framework Regulations

Regulation 17

A 2.28 Regulation 17 of the Framework Regulations governs the management of radio frequencies for ECS. Regulation 17(1) requires that ComReg, subject to any directions issued by the Minister pursuant to Section 13 of the 2002 Act and having regard to its objectives under Section 12 of the 2002 Act and Regulation 16 of the Framework Regulations and the provisions of Article 8a of the Framework Directive, ensure:

- the effective management of radio frequencies for ECS;
- that spectrum allocation used for ECS and issuing of general authorisations or individual rights of use for such radio frequencies are based on objective, transparent, non-discriminatory and proportionate criteria; and
- ensure that harmonisation of the use of radio frequency spectrum across the EU is promoted, consistent with the need to ensure its effective and efficient use and in pursuit of benefits for the consumer such as economies of scale and interoperability of services, having regard to all decisions and measures adopted by the European Commission in accordance with Decision No. 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the EU.

A 2.29 Regulation 17(2) provides that, unless otherwise provided in Regulation 17(3), ComReg must ensure that all types of technology used for ECS may be used in the radio frequency bands that are declared available for ECS in the Radio Frequency Plan published under Section 35 of the 2002 Act in accordance with EU law.

A 2.30 Regulation 17(3) provides that, notwithstanding Regulation 17(2), ComReg may, through licence conditions or otherwise, provide for proportionate and non-discriminatory restrictions to the types of radio network or wireless access technology used for ECS where this is necessary to:

- avoid harmful interference;
- protect public health against electromagnetic fields;
- ensure technical quality of service;

- ensure maximisation of radio frequency sharing;
- safeguard the efficient use of spectrum; or
- ensure the fulfilment of a general interest objective as defined by or on behalf of the Government or a Minister of the Government in accordance with Regulation 17(6).

A 2.31 Regulation 17(4) requires that, unless otherwise provided in Regulation 17(5), ComReg must ensure that all types of ECS may be provided in the radio frequency bands, declared available for ECS in the Radio Frequency Plan published under Section 35 of the Act of 2002 in accordance with EU law.

A 2.32 Regulation 17(5) provides that, notwithstanding Regulation 17(4), ComReg may provide for proportionate and non-discriminatory restrictions to the types of ECS to be provided, including where necessary, to fulfil a requirement under the International Telecommunication Union Radio Regulations (“ITU-RR”).

A 2.33 Regulation 17(6) requires that measures that require an ECS to be provided in a specific band available for ECS must be justified in order to ensure the fulfilment of a general interest objective as defined by or on behalf of the Government or a Minister of the Government in conformity with EU law such as, but not limited to:

- safety of life;
- the promotion of social, regional or territorial cohesion;
- the avoidance of inefficient use of radio frequencies; or
- the promotion of cultural and linguistic diversity and media pluralism, for example, by the provision of radio and television broadcasting services.

A 2.34 Regulation 17(7) provides that ComReg may only prohibit the provision of any other ECS in a specific radio spectrum frequency band where such a prohibition is justified by the need to protect safety of life services. ComReg may, on an exceptional basis, extend such a measure in order to fulfil other general interest objectives as defined by or on behalf of the Government or a Minister of the Government.

A 2.35 Regulation 17(8) provides that ComReg must, in accordance with Regulation 18, regularly review the necessity of the restrictions referred to in Regulations 17(3) and 17(5) and must make the results of such reviews publicly available.

A 2.36 Regulation 17(9) provides that Regulations 17(2) to (7) only apply to spectrum

allocated to be used for ECS, general authorisations issued and individual rights of use for radio frequencies granted after 1 July 2011. Spectrum allocations, general authorisations and individual rights of use which already existed on 1 July 2011 are subject to Regulation 18 of the Framework Regulations.

- A 2.37 Regulation 17(10) provides that ComReg may, having regard to its objectives under Section 12 of the 2002 Act and Regulation 16 and its functions under the Specific Regulations, lay down rules in order to prevent spectrum hoarding, in particular by setting out strict deadlines for the effective exploitation of the rights of use by the holder of rights and by withdrawing the rights of use in cases of non-compliance with the deadlines. Any rules laid down under this Regulation must be applied in a proportionate, non-discriminatory and transparent manner.
- A 2.38 Regulation 17(11) requires ComReg to, in the fulfilment of its obligations under that Regulation, respect relevant international agreements, including the ITU-RR and any public policy considerations brought to its attention by the Minister.

Decision to limit rights of use for radio frequencies

- A 2.39 Regulation 9(2) of the Authorisation Regulations provides that ComReg may grant individual rights of use for radio frequencies by way of a licence where it considers that one or more of the following criteria are applicable:
- it is necessary to avoid harmful interference;
 - it is necessary to ensure technical quality of service;
 - it is necessary to safeguard the efficient use of spectrum; or
 - it is necessary to fulfil other objectives of general interest as defined by or on behalf of the Government or a Minister of the Government in conformity with EU law.
- A 2.40 Regulation 9(10) of the Authorisation Regulations provides that ComReg must not limit the number of rights of use for radio frequencies to be granted except where this is necessary to ensure the efficient use of radio frequencies in accordance with Regulation 11.
- A 2.41 Regulation 9(7) also provides that:
- where individual rights of use for radio frequencies are granted for a period of 10 years or more and such rights may not be transferred or leased between undertakings in accordance with Regulation 19 of the Framework Regulations, ComReg must ensure that criteria set out in

Regulation 9(2) apply for the duration of the rights of use, in particular upon a justified request from the holder of the right.

- where ComReg determines that the criteria referred to in Regulation 9(2) are no longer applicable to a right of use for radio frequencies, ComReg must, after a reasonable period and having notified the holder of the individual rights of use, change the individual rights of use into a general authorisation or must ensure that the individual rights of use are made transferable or leasable between undertakings in accordance with Regulation 19 of the Framework Regulations.

Publication of procedures

A 2.42 Regulation 9(4)(a) of the Authorisation Regulations requires that ComReg, having regard to the provisions of Regulation 17 of the Framework Regulations, establish open, objective, transparent, non-discriminatory and proportionate procedures for the granting of rights of use for radio frequencies and cause any such procedures to be made publicly available.

Duration of rights of use for radio frequencies

A 2.43 Regulation 9(6) of the Authorisation Regulations provides that rights of use for radio frequencies must be in force for such period as ComReg considers appropriate having regard to the network or service concerned in view of the objective pursued taking due account of the need to allow for an appropriate period for investment amortisation.

Conditions attached to rights of use for radio frequencies

A 2.44 Regulation 9(5) of the Authorisation Regulations provides that, when granting rights of use for radio frequencies, ComReg must, having regard to the provisions of Regulations 17 and 19 of the Framework Regulations, specify whether such rights may be transferred by the holder of the rights and under what conditions such a transfer may take place.

A 2.45 Regulation 10(1) of the Authorisation Regulations provides that, notwithstanding Section 5 of the Wireless Telegraphy Act, 1926, but subject to any regulations under Section 6 of that Act, ComReg may only attach those conditions listed in Part B of the Schedule to the Authorisation Regulations. Part B lists the following conditions which may be attached to rights of use:

- Obligation to provide a service or to use a type of technology for which the rights of use for the frequency has been granted including, where appropriate, coverage and quality requirements.

- Effective and efficient use of frequencies in conformity with the Framework Directive and Framework Regulations.
- Technical and operational conditions necessary for the avoidance of harmful interference and for the limitation of exposure of the general public to electromagnetic fields, where such conditions are different from those included in the general authorisation.
- Maximum duration in conformity with Regulation 9, subject to any changes in the national frequency plan.
- Transfer of rights at the initiative of the rights holder and conditions of such transfer in conformity with the Framework Directive.
- Usage fees in accordance with Regulation 19.
- Any commitments which the undertaking obtaining the usage right has made in the course of a competitive or comparative selection procedure.
- Obligations under relevant international agreements relating to the use of frequencies.
- Obligations specific to an experimental use of radio frequencies.

A 2.46 Regulation 10(2) also requires that any attachment of conditions under Regulation 10(1) to rights of use for radio frequencies must be non-discriminatory, proportionate and transparent and in accordance with Regulation 17 of the Framework Regulations.

Procedures for limiting the number of rights of use to be granted for radio frequencies

A 2.47 Regulation 11(1) of the Authorisation Regulations provides that, where ComReg considers that the number of rights of use to be granted for radio frequencies should be limited it must, without prejudice to Sections 13 and 37 of the 2002 Act:

- give due weight to the need to maximise benefits for users and to facilitate the development of competition, and
- give all interested parties, including users and consumers, the opportunity to express their views in accordance with Regulation 12 of the Framework Regulations.

A 2.48 Regulation 11(2) of the Authorisation Regulations requires that, when granting

the limited number of rights of use for radio frequencies it has decided upon, ComReg does so “...on the basis of selection criteria which are objective, transparent, non-discriminatory and proportionate and which give due weight to the achievement of the objectives set out in Section 12 of the 2002 Act and Regulations 16 and 17 of the Framework Regulations.”

- A 2.49 Regulation 11(4) provides that where it decides to use competitive or comparative selection procedures, ComReg must, inter alia, ensure that such procedures are fair, reasonable, open and transparent to all interested parties.

Fees for spectrum rights of use

- A 2.50 Regulation 19 of the Authorisation Regulations permits ComReg to impose fees for rights of use which reflect the need to ensure the optimal use of the radio frequency spectrum.

- A 2.51 ComReg is required to ensure that any such fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and take into account the objectives of ComReg as set out in Section 12 of the 2002 Act and Regulation 16 of the Framework Regulations.

Amendment of rights and obligations

- A 2.52 Regulation 15 of the Authorisation Regulations permits ComReg to amend rights and conditions concerning rights of use, provided that any such amendments may only be made in objectively justified cases and in a proportionate manner, following the process set down in Regulation 15(4).

A2.3 Other Relevant Provisions

Wireless Telegraphy Act, 1926 (the “1926 Act”)

- A 2.53 Under Section 5(1) of the 1926 Act, ComReg may, subject to that Act, and on payment of the prescribed fees (if any), grant to any person a licence to keep and have possession of apparatus for wireless telegraphy in any specified place in the State.
- A 2.54 Section 5(2) provides that, such a licence shall be in such form, continue in force for such period and be subject to such conditions and restrictions (including conditions as to suspension and revocation) as may be prescribed in regard to it by regulations made by ComReg under Section 6.
- A 2.55 Section 5(3) also provides that, where it appears appropriate to ComReg, it may, in the interests of the efficient and orderly use of wireless telegraphy, limit the number of licences for any particular class or classes of apparatus for

wireless telegraphy granted under Section 5.

A 2.56 Section 6 provides that ComReg may make regulations prescribing in relation to all licences granted by it under Section 5, or any particular class or classes of such licences, all or any of the following matters:

- the form of such licences;
- the period during which such licences continue in force;
- the manner in which, the terms on which, and the period or periods for which such licences may be renewed;
- the circumstances in which or the terms under which such licences are granted;
- the circumstances and manner in which such licences may be suspended or revoked by ComReg;
- the terms and conditions to be observed by the holders of such licences and subject to which such licences are deemed to be granted;
- the fees to be paid on the application, grant or renewal of such licences or classes of such licences, subject to such exceptions as ComReg may prescribe, and the time and manner at and in which such fees are to be paid; and
- matters which such licences do not entitle or authorise the holder to do.

A 2.57 Section 6(2) provides that Regulations made by ComReg under Regulation 6 may authorise and provide for the granting of a licence under Section 5 subject to special terms, conditions, and restrictions to persons who satisfy it that they require the licences solely for the purpose of conducting experiments in wireless telegraphy.

A 2.58 Regulation 10(1) of the Authorisation Regulations provides that, notwithstanding section 5 of the Act of 1926 but subject to any regulations made under section 6 of that Act, where ComReg attaches conditions to rights of use for radio frequencies, it may only attach such conditions as are listed in Part B of the Schedule to the Authorisation Regulations.

Article 4 of Directive 2002/77/EC (Competition Directive)

A 2.59 Article 4 of the Competition Directive provides that:

“Without prejudice to specific criteria and procedures adopted by Member States to grant rights of use of radio frequencies to providers of radio or television broadcast content services with a view to pursuing general interest objectives in conformity with Community law:

- *Member States shall not grant exclusive or special rights of use of radio frequencies for the provision of electronic communications services.*
- *The assignment of radio frequencies for electronic communication services shall be based on objective, transparent, non-discriminatory and proportionate criteria.”*

Annex: 3 Draft Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No. 2) Regulations

STATUTORY INSTRUMENTS

S.I. No. _____ of 2021

WIRELESS TELEGRAPHY (FURTHER TEMPORARY ELECTRONIC
COMMUNICATIONS SERVICES LICENCES) (NO. 2) REGULATIONS
2021

DRAFT

WIRELESS TELEGRAPHY (FURTHER TEMPORARY ELECTRONIC COMMUNICATIONS SERVICES LICENCES) (NO.2) REGULATIONS 2021

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 the Environment, Climate and Communications in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), (as adapted by the Communications, Climate Action and Environment (Alteration of Name of Department and Title of Minister) Order 2020 (S.I. No. 373 of 2020)) hereby makes the following Regulations:

Citation

1. These Regulations may be cited as the Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No. 2) Regulations 2021.

Interpretation

2. (1) In these Regulations:

“2.1 GHz Band” means radio frequency spectrum in the range 1920 to 1980 MHz paired with radio frequency spectrum in the range 2110 to 2170 MHz;

“2.1 GHz Band Block” means a 5 MHz paired block of radio frequency spectrum in the 2.1 GHz Band;

“2.6 GHz Band” means radio frequency spectrum in the range 2500 to 2690 MHz;

“2.6 GHz Band FDD Frequency Generic Block” means a 5 MHz block of radio frequency spectrum in the range 2500 to 2570 MHz paired with a 5 MHz block of radio frequency spectrum in the range 2620 to 2690 MHz;

“2.6 GHz Band TDD Fixed Frequency Block (Lower)” means the 5 MHz unpaired block of radio frequency spectrum in the range 2570 to 2575 MHz;

“2.6 GHz Band TDD Fixed Frequency Block (Upper)” means a 5 MHz unpaired block of radio frequency spectrum in the range 2615 to 2620 MHz;

“2.6 GHz Band TDD Frequency Generic Block” means a 5 MHz unpaired block of radio frequency spectrum in the range 2575 to 2615 MHz;

“2.6 GHz Band Blocks” means the 2.6 GHz Band FDD Frequency Generic Blocks and the 2.6 GHz Band TDD Blocks;

“2.6 GHz Band TDD Blocks” means the 2.6 GHz Band TDD Fixed Frequency Block (Lower), 2.6 GHz Band TDD Fixed Frequency Block (Upper) and 2.6 GHz Band TDD Frequency Generic Blocks;

“700 MHz Duplex” means radio frequency spectrum in the range 703 to 733 MHz paired with radio frequency spectrum in the range 758 to 788 MHz;

“700 MHz Duplex Block” means a 5 MHz paired block of radio frequency spectrum in the 700 MHz Duplex;

“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” 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;

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

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

“Decision of 2008” means European Commission Decision (2008/477/EC) of 13 June 2008 on the harmonisation of the 2500-2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community, as amended by European Commission Implementing Decision (EU) 2020/636 of 8 May 2020;

“Decision of 2012” means European Commission Implementing Decision (2012/688/EU) of 5 November 2012 on the harmonisation of the frequency bands 1920-1980 MHz and 2110-2170 MHz for terrestrial systems capable of providing electronic communications services in the Union, as amended by European Commission Implementing Decision (EU) 2020/667 of 6 May 2020;

“Decision of 2016” means European Commission Implementing Decision (EU) 2016/687 of 28 April 2016 on the harmonisation of the 694-790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the Union;

“Electronic Communications Network” (“ECN”) and “Electronic Communications Service” (“ECS”) 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;

“FDD” means Frequency Division Duplex;

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

“Further Temporary Electronic Communications Services Licence (No. 2)” means a Licence in the form set out in Schedule 1 to keep and have possession of Apparatus, in accordance with and subject to the terms and conditions set out therein;

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

“Lease” means the assignment by a Licensee (“the Lessor”) of some or all of a right of use for radio frequencies granted under a Licence for a period less than the remaining duration of the right of use to another party (“the Lessee”), after which the right of use for radio frequencies 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 specified place in the State, being a Further Temporary Electronic Communications Services Licence (No. 2);

“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 for the radio frequency spectrum specified in the Licence;

“Non-Interference and Non-Protected Basis” means that the use of apparatus for wireless telegraphy is subject to no Harmful Interference being caused to any Radiocommunication Service, and that no claim may be made for the protection of apparatus for wireless telegraphy 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;

“TDD” means Time Division Duplex;

“Transfer” 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); and

“Undertaking” has the same meaning set out in the Framework Regulations.

(2) 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.

(3) 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.

(4) 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.

Licences to which these Regulations apply

3. These Regulations apply to Further Temporary Electronic Communications Services Licences (No. 2).

Application for the Grant and Form of Licences

4. (1) Application for the grant of a Licence shall be made by an Undertaking 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 Licence, following payment by the applicant of the relevant fee prescribed in Regulation 8, in accordance with the Authorisation Regulations and having regard to, among other things:

- (a) available information regarding the extraordinary situation arising from COVID-19 and, in particular, as it may reasonably affect Electronic Communications Networks and the provision of relevant Electronic Communications Services in the State;

- (b) available information regarding the impact of the extraordinary situation arising from COVID-19 upon the capacity of the Electronic Communications Network operated by the Undertaking, including the locations in the State where any capacity constraints are occurring or are likely to occur;
- (c) available information regarding how the rights of use of radio frequencies applied for by the Undertaking would reasonably and materially assist in alleviating the capacity constraints identified in connection with sub-paragraph (b), including the lead time for the Undertaking to effectively make use of such rights of use of radio frequencies;
- (d) available information regarding the risks to the provision of existing Electronic Communications Services, and the quality of such existing provision, by the Undertaking in making changes to its Electronic Communications Network to effectively make use of the rights of use of radio frequencies applied for;
- (e) the need to encourage the efficient use and ensure the effective management of the radio frequency spectrum; and
- (f) the Commission's obligations and objectives in relation to competition for the provision of Electronic Communications Networks and Electronic Communications Services.

(3) An Undertaking who applies for the grant of a Licence shall furnish to the Commission such information as the Commission may reasonably require for the purposes of its functions under these Regulations, the Act of 1926, the Framework Regulations and/or the Authorisation Regulations, and if the Undertaking, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant the Licence concerned to the Undertaking.

(4) A 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 in accordance with the Authorisation Regulations.

Duration of Licences

5. (1) The commencement date and expiry date of a Licence shall be set by the Commission and specified in the Licence.

(2) The duration of any Licence granted under these Regulations shall be up to but no longer than three calendar months.

(3) Upon application properly being made in accordance with Regulation 4, the Commission may renew a Licence granted under these Regulations for a further period of up to but no longer than three calendar months.

(4) Any Licence granted or renewed under these Regulations shall expire no later than 1 October 2021.

Conditions of Licences

6. 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 any Apparatus in the 700 MHz Duplex complies with the Decision of 2016, any Apparatus in the 2.1 GHz Band complies with the Decision of 2012, and any Apparatus in the 2.6 GHz Band complies with the Decision of 2008;
- (c) ensure that all Apparatus installed, maintained, possessed or kept under the Licence is capable of operating within the radio frequency spectrum specified in the Licence;
- (d) ensure that all Apparatus worked or used under the Licence is worked or used only in the radio frequency spectrum specified in the Licence;
- (e) ensure that it makes payment of the fee set out in and in accordance with Regulation 8;
- (f) furnish such information in respect of the Licence as may be requested by the Commission from time to time;
- (g) ensure that all Apparatus, or any part thereof, is installed, maintained, worked and used so as not to cause Harmful Interference;
- (h) ensure that all Apparatus, 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 under a Licence; and
- (l) not Transfer or Lease any rights of use for radio frequencies attaching to a Licence.

Enforcement, Amendment, Suspension and Withdrawal

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 a Licence from time to time in accordance with the Authorisation Regulations having regard to, among other things, the factors set out in Regulation 4(2), and by giving the Licensee 5 days' notice in writing.

(3) The Commission may suspend or withdraw a Licence in accordance with the Authorisation Regulations.

Licence Fees

8. (1) The fee for a Licence, or renewal of a Licence, is €100 and is non-refundable.

(2) Any payment to be paid by a Licensee under 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.

Licensee to satisfy all legal requirements

9. 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 at a specified location or locations in the State.

SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (FURTHER TEMPORARY ELECTRONIC COMMUNICATIONS SERVICES LICENCES) (NO. 2) REGULATIONS 2021

Further Temporary Licence (No. 2) for terrestrial systems capable of providing
Electronic Communications Services

Licence under section 5 of the Act of 1926 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 Act of 1926 hereby grants the following licence to [LICENSEE NAME] of [LICENSEE ADDRESS] (“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 of this Licence, subject to such apparatus being installed, maintained, worked and used in accordance with the terms, conditions and restrictions set out in the Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No. 2) Regulations 2021 (S.I. No. of 2021) (“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 and within Parts 1 to 4 of this Licence; and
- (2) The Licensee shall ensure that it makes payment of the fee detailed in the Regulations.

For the purpose of this Licence, the definitions set out in the Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No. 2) Regulations 2021 apply.

This Licence shall come in to 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

Commencement and expiry dates of Spectrum Blocks

Authorised Band	Name of Spectrum Block	Frequency Assigned to Spectrum Block	Commencement Date per Spectrum Block	Expiry Date per Spectrum Block
700 MHz Duplex, 2.1 GHz, 2.6 GHz, as appropriate	Block A, B, C etc.	From ——— MHz to ——— MHz	DD Month YYYY	DD Month YYYY

Part 2

The Apparatus to which this Licence applies

Authorised Band	Equipment Index Reference	Terrestrial System	Equipment Description	Manufacturer	Model
700 MHz Duplex, 2.1 GHz, 2.6 GHz, as appropriate					

Part 3

Apparatus Location and Details

Authorised Band	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP/ TRP (dBm/5MHz)
700 MHz Duplex, 2.1 GHz, 2.6 GHz as appropriate					

Part 4

Licence Conditions

Section 1: General

Harmful Interference

1. 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, the Commission may mediate in accordance with its statutory functions, objectives and duties.

Section 2: Technical Conditions

Definitions

1. The following additional definitions shall apply to this Licence:

“2RN” means RTÉ Transmission Network DAC (trading as 2rn);

“Active Antenna Systems” or “AAS” means a Base Station and an antenna system where the amplitude and/or phase between antenna elements is continually adjusted resulting in an antenna pattern that varies in response to short term changes in the radio environment. This excludes long-term beam shaping such as fixed electrical down tilt. In AAS Base Stations the antenna system is integrated as part of the Base Station system or product;

“Non-Active Antenna Systems” or “non-AAS” means a Base Station and an antenna system that provides one or more antenna connectors, which are connected to one or more separately designed passive antenna elements to radiate radio waves. The amplitude and phase of the signals to the antenna elements is not continually adjusted in response to short term changes in the radio environment;

“Aeronautical Primary Radars” means apparatus (including “Star2000” and “TA10” models) providing primary aircraft detection used in airport surveillance networks at Dublin, Cork and Shannon airports;

“Base Station” means Apparatus connected to a backhaul network which provides a Radiocommunication Service to Terminal Stations using spectrum in the 700 MHz Duplex, 2.1 GHz Band or 2.6 GHz Band;

“Block Edge Mask” or “BEM” is an emission mask that is defined as a function of frequency in relation to a ‘block edge’, the latter being the frequency boundary of a spectrum block for which rights of use are assigned to a Licensee. The BEM consists of several elements which are defined for certain measurement bandwidths.

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

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

“IAA” means the Irish Aviation Authority;

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

“MNO” means a mobile network operator with an existing network in Ireland;

“Power Flux Density limit” or pfd limit (dBW/m^2) equals the interference threshold at radar receiver input (measured in dBW) minus the radar antenna gain (measured in dBi) plus $10 \log(4\pi/\lambda^2)$, where λ is the wavelength in meters;

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

“TRP” (total radiated power) is a measure of how much power the antenna actually radiates and is defined as the integral of the power transmitted in different directions over the entire radiation sphere;

“Terminal Station” means mobile user equipment and fixed customer premise equipment which communicates with a Base Station using spectrum in the 700 MHz Duplex, 2.1 GHz Band or 2.6 GHz Band;

“Uplink” means transmissions from a Terminal Station to a Base Station; and

“Virgin Media” means Virgin Media Ireland Limited.

Technical Conditions

2. The 700 MHz Duplex

- (a) Only terrestrial systems compatible with the Decision of 2016 can be worked and used in the 700 MHz Duplex.
- (b) The FDD mode of operation shall be used in the 700 MHz Duplex. The duplex spacing shall be 55 MHz with Terminal Station transmission (FDD uplink) located in the lower frequency band 703-733 MHz and Base Station transmission (FDD downlink) located in the upper frequency band 758-788 MHz.

- (c) The Licensee shall comply with all Memoranda of Understanding ('MoU')¹ agreed between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular the Office of Communications ("Ofcom") in the UK, or its successor, in relation to the 700 MHz Duplex.
- (d) The Licensee shall comply with the 700 MHz Coordination Procedures as agreed to by the MNOs, 2RN and Virgin Media on 3 April 2020 and published by the Commission on 7 April 2020 as Annex 4 to Commission Document 20/27.

Base Stations

- (e) Within a 700 MHz Duplex Block assigned to the Licensee, the in-block power from a Base Station must not exceed a maximum mean EIRP of 64 dBm/5 MHz per antenna.
- (f) Outside of the 700 MHz Duplex Block(s) assigned to the Licensee, the Licensee shall comply with the out-of-block BEM as specified in Section B of the Annex of the Decision of 2016.

Terminal Stations

- (g) The maximum mean in-block power limit of 23 dBm for Terminal Stations shall apply².
- (h) The out-of-block technical conditions set out in Table 10 to Table 12 of the Annex to the Decision of 2016 shall apply.
- (i) Where a Licensee holds more than 2×10 MHz in the 700 MHz Duplex and if this assignment is deployed starting at 703 MHz, the licensee shall not deploy a bandwidth greater than 10 MHz for Terminal Stations in order to meet the conditions as set out in Table 12 of the Annex to the Decision of 2016 to provide protection to the frequency range 470 - 694 MHz.

¹ [Memorandum of Understanding](#) on frequency coordination between Ireland and the United Kingdom concerning the spectrum coordination of Land Mobile Radio Communication Networks in the frequency range 703 MHz to 2690 MHz, available at www.comreg.ie

² This power limit is specified as EIRP for Terminal Stations designed to be fixed or installed and as total radiated power (TRP) for Terminal Stations designed to be mobile or nomadic. This value is subject to a tolerance of up to + 2 dB, to take account of operation under extreme environmental conditions and production spread.

3. The 2.1 GHz Band

- (a) Only terrestrial systems compatible with the Decision of 2012 can be worked and used in the 2.1 GHz Band.
- (b) The duplex mode of operation shall be FDD. The duplex spacing shall be 190 MHz with Terminal Station transmission (FDD uplink) located in the lower part of the band starting at 1920 MHz and finishing at 1980 MHz and Base Station transmission (FDD downlink) located in the upper part of the band starting at 2110 MHz and finishing at 2170 MHz.
- (c) The Licensee shall comply with all MoU³ between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular the Office of Communications (“Ofcom”) in the UK, or its successor, in relation to the spectrum in the 2.1 GHz Band.

Base Stations

- (d) Within a 2.1 GHz Band Block assigned to the Licensee, the in-block radiated power from a Base Station transmitter in the downlink direction must not exceed:
 - (i) an EIRP of 64 dBm/5 MHz per antenna for non-AAS; and
 - (ii) a TRP limit of 57 dBm/5MHz per cell for AAS.
- (e) Outside of the 2.1 GHz Band Block(s) assigned to the Licensee, the Licensee shall comply with the out-of-block BEM as specified in Section C of the Annex to the Decision of 2012.

Terminal Stations

- (f) The maximum mean in-block power limit over frequencies of FDD Uplink of 24 dBm for Terminal Stations shall apply⁴.

³ [Memorandum of Understanding](#) on frequency coordination between Ireland and the United Kingdom concerning the spectrum coordination of Land Mobile Radio Communication Networks in the frequency range 703 MHz to 2690 MHz, available at www.comreg.ie

⁴ This power limit is specified as EIRP for terminal stations designed to be fixed or installed and as TRP for terminal stations designed to be mobile or nomadic. EIRP and TRP are equivalent for isotropic antennas. It is recognised that this value may be subject to a tolerance defined in the harmonised standards to take account of operation under extreme environmental conditions and production spread.

4. The 2.6 GHz Band

- (a) Only terrestrial systems compatible with the Decision of 2008 can be worked and used in the 2.6 GHz Band.
- (b) Within the 2.6 GHz Band FDD Generic Frequency Blocks, the duplex mode of operation is FDD, where the duplex spacing shall be 120 MHz with terminal station transmission (Uplink) located in the lower part of the band starting at 2500 MHz (extending to 2570 MHz) and base station transmission (downlink) located in the upper part of the band starting at 2620 MHz.
- (c) Within the 2570 - 2620 MHz frequency range of the 2.6 GHz Band, the modes of operation permitted in accordance with the Decision of 2008 are:
 - (i) TDD;
 - (ii) Base Station transmission only; and
 - (iii) Terminal Station transmission only.
- (d) To achieve coexistence of adjacent FDD and TDD networks:
 - (i) the 2.6 GHz Band TDD Fixed Frequency Block (Lower) is a restricted spectrum block as described in the Annex of the Decision of 2008; and
 - (ii) the 2.6 GHz Band TDD Fixed Frequency Block (Upper) may be utilised in accordance with the Decision of 2008 noting that it may suffer an increased risk of interference due to the emissions from the FDD downlink.
- (e) Licensees assigned 2.6 GHz Band TDD Blocks shall comply with the Inter-Licensee Synchronisation Procedure set out in Section 3 of this Licence.
- (f) The Licensee shall comply with all MoU⁵ between the Commission and its neighbouring national regulatory authorities

⁵ [Memorandum of Understanding](#) on frequency coordination between Ireland and the United Kingdom concerning the spectrum coordination of Land Mobile Radio Communication Networks in the frequency range 703 MHz to 2690 MHz, available at www.comreg.ie

responsible for communications matters, in particular the Office of Communications (“Ofcom”) in the UK, or its successor, in relation to spectrum in the 2.6 GHz Band.

Base Stations

- (g) Within any 2.6 GHz Band FDD Generic Frequency Blocks, any 2.6 GHz Band TDD Generic Frequency Blocks, and the 2.6 GHz Band TDD Fixed Frequency Block (Upper)⁶ assigned to a Licensee, the in-block radiated power from a Base Station transmitter must not exceed an upper limit of:
 - (i) 68 dBm/5 MHz per antenna for Non-AAS; and
 - (ii) 60 dBm/5 MHz per cell for AAS.
- (h) Within the 2.6 GHz Band TDD Fixed Frequency Block (Lower), assigned to a Licensee, the in-block radiated power from a Base Station transmitter in the downlink direction must not exceed a mean in-block power of:
 - (i) 25 dBm/5 MHz EIRP per antenna for Non-AAS; and
 - (ii) 22 dBm/5 MHz TRP limit per cell for AAS.
- (i) Outside of any 2.6 GHz Band FDD Generic Frequency Blocks assigned to the Licensee, the Licensee shall comply with the out-of-block BEM which is built up by combining Tables 2, 3 and 4 of Section C of the Annex of the Decision of 2008, in such a way that the limit for each frequency is given by the higher value out of the baseline and the in-block power limits.
- (j) Outside of the 2.6 GHz Band TDD Fixed Frequency Block (Lower), any 2.6 GHz Band TDD Generic Frequency Blocks and the 2.6 GHz Band TDD Fixed Frequency Block (Upper) assigned to a Licensee, the Licensee shall comply with the Inter Licensee Synchronisation procedure set out in Section 3.
- (k) Outside of the 2.6 GHz Band TDD Fixed Frequency Block (Lower) and where Base Station antennas are placed indoors, the BEM for Non-AAS may be in line with Table 6 of Section C of the Annex of the Decision of 2008, provided that at geographical

⁶ The 2.6 GHz Band TDD Fixed Frequency Block (Upper), which is immediately adjacent to the FDD downlink, may suffer an increased risk of interference due to the emissions from the FDD downlink.

borders to other Member States, Table 3 of Section C of the Annex of the Decision of 2008 applies and that Table 5 of Section C of the Annex of the Decision of 2008 remains valid nationwide.

- (l) Unless otherwise agreed between the Licensee and the IAA in writing, the Licensee shall ensure protection of all Aeronautical Primary Radars⁷, by:
- (i) deploying Base Stations outside of exclusion zones defined in Figures 4.3, 4.5, 4.6 and 5.3 of the Plum Report (Commission Document 19/124c)⁸; and
 - (ii) complying with the relevant Power Flux Density (pfd) limits with respect to:
 - I. the STAR2000 radars with locations as set out in Chapter 3 of Commission Document 19/59c⁹ as follows:
 - A. an out-of-band Base Station pfd limit of -145 dBW/m²/MHz per operator to address impact of spurious MFCN emissions at the radar antenna; and
 - B. an in-band Base Station pfd limit of -83 dBW/m² per operator, to address the impact of blocking and intermodulation effects at radar receivers.
 - II. the TA10 radar with a location as set out in Chapter 5 of Commission Document 19/124c¹⁰ as follows:
 - A. an out-of-band Base Station pfd limit of -156 dBW/m²/MHz per operator to address the impact of spurious MFCN emissions at the radar antenna; and
 - B. an in-band Base Station pfd limit of -93 dBW/m² per operator, to address the impact of

⁷ Aeronautical radar locations (Dublin, Shannon and Cork) and technical parameters are detailed in Plum Report, Commission Documents 19/59c and 19/124c, available at www.comreg.ie

⁸ Shape files (.SHP) representing these figures are available at www.comreg.ie

⁹ Commission Document 19/59c, available at www.comreg.ie

¹⁰ Commission Document 19/124c, available at www.comreg.ie

blocking and intermodulation effects at radar receivers.

For deployments in compliance with condition (l) above, the Licensee shall nominate a point of contact for coordination with the IAA and provide written notification to the IAA of any 2.6 GHz Band deployments at least 48 hours in advance of their deployment, and provide such information on any 2.6 GHz Band deployments as may reasonably be required by the IAA, including information on antenna height, antenna orientation, and predicted coverage plots.

Terminal Stations

- (m) The maximum mean in-block power (including Automatic Transmitter Power Control range) of:
 - (i) 35 dBm/5 MHz EIRP; and
 - (ii) 31 dBm/5 MHz TRP,shall apply to Terminal Stations¹¹.

Section 3: Inter-Licensee Synchronisation Procedure

This Section 3 applies only to Licensees who have been assigned 2.6 GHz Band TDD Blocks.

Definitions

1. The following additional definitions shall apply in this section:

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

“Indoor Small Cell” means either a Non-AAS Base Station with an EIRP of less than or equal to 24 dBm per 20 MHz carrier or an AAS Base Station with a TRP

¹¹ EIRP should be used for fixed or installed terminal stations and the TRP should be used for the mobile or nomadic terminal stations. TRP is a measure of how much power the antenna actually radiates. The TRP is defined as the integral of the power transmitted in different directions over the entire radiation sphere.

of less than or equal to 16 dBm per 20 MHz carrier that is located indoors either within a residential or non-residential property;

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

“Restrictive BEM” means, for Licensees utilising the Other Frame Structure (or failing to synchronise with adjacent channel networks for any other reason): for any 2.6 GHz Band TDD Blocks assigned to a Licensee, a restrictive BEM is given by combining Table 3 and either Table 2¹² or Table 5¹³ as appropriate in Section C of the Annex of the Decision of 2008, in such a way that the limit for each frequency is given by the higher value out of the baseline and the in-block power limits applies;

“Unrestrictive BEM” means Operators utilising the Default Frame Structure on their network (and having a common reference phase clock with adjacent channel operators¹⁴): for any 2.6 GHz Band TDD Blocks assigned to a Licensee, a BEM given by combining Table 2¹² or Table 5¹³ as appropriate, Tables 3 and 4 of Section C. of the Annex of the Decision of 2008, in such a way that the limit for each frequency is given by the higher value out of the baseline and the in-block power limits applies ;

Introduction

2. (1) Licensees assigned 2.6 GHz Band TDD Blocks shall be bound by the inter-Licensee synchronisation procedure set out in this Section 3.

(2) Licensees shall co-operate in such a way that one network deployment within spectrum in the 2.6 GHz Band does not cause Harmful Interference to that of another Licensee.

(3) This procedure sets out the circumstances in which Licensees may use the Unrestrictive BEM and the Restrictive BEM, so as to minimise the risk of Harmful Interference to other Licensees.

¹² For 2.6 GHz Band TDD Generic Frequency Blocks and the 2.6 GHz Band TDD Fixed Frequency Block (Upper)

¹³ For the case of 2.6 GHz Band TDD Fixed Frequency Block (Lower)

¹⁴ Each operator needs to ensure the start of frame is aligned with adjacent channel operators above and below its assignment

Conditions for using the Unrestrictive BEM

3. Default Frame Structure - The technical conditions for Unrestrictive BEM 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 Table 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.

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

Table 1: Default Frame Structure

Conditions for using the Restrictive BEM

4. Other Frame Structure — the technical conditions for Restrictive BEM 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 sub-frame 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 BEM 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).

Indoor Small Cells

5. Indoor Small Cells for indoor domestic and other indoor locations are permitted to operate under the Unrestrictive BEM on the condition that they do not cause Harmful Interference to any other Licensees.

Section 4: Coverage Requirements

1. Coverage at specific locations in the State

Coverage	Location	Obligation
Outdoors	Specific locations in relation to the extraordinary situation arising from COVID-19 as may be determined from time to time by the Government and communicated to the Commission by the Department of the Environment, Climate and Communications	Best efforts using all rights of use available to the Licensee

Table 1: Outdoor coverage obligations at specific locations in relation to the extraordinary situation arising from COVID-19

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

day of 2021

For and on behalf of the Commission for Communications Regulation

The Minister for the Environment, Climate and Communications, in accordance with section 37 of the Communications Regulation Act, 2002, (as adapted by the Communications, Climate Action and Environment (Alteration of Name of Department and Title of Minister) Order 2020 (S.I. No. 373 of 2020)) consents to the making of the foregoing Regulations.

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

day of 2021

Eamon Ryan

Minister for the Environment, Climate and Communications

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 the further temporary licences (No. 2) for apparatus for wireless telegraphy for terrestrial systems capable of providing Electronic Communications Services in the 700 MHz Duplex, the 2.1 GHz, the 2.6 GHz Bands to address the temporary impact upon Electronic Communications Networks and Electronic Communications Services from the extraordinary situation arising from COVID-19.

DRAFT

Annex: 4 Non-confidential submissions to Document 21/16

Eircom Limited and Meteor Mobile Communication Limited (trading as ‘eir’ and ‘open eir’), collectively referred to as ‘eir Group’ or ‘eir’

eir

Response to ComReg Consultation:

COVID-19: Temporary spectrum management measures

**Second further temporary spectrum rights in the 700 MHz, 2.1 GHz and
2.6 GHz Bands**

ComReg Document 21/16



10 March 2021

DOCUMENT CONTROL

Document name	eir response to ComReg 21/16
Document Owner	eir
Status	Non-Confidential

The comments submitted in response to this consultation document are those of Eircom Limited and Meteor Mobile Communications Limited (trading as 'eir' and 'open eir'), collectively referred to as 'eir Group' or 'eir'.

Response to consultation

eir welcomes ComReg's proposal to create a second licensing regime for further temporary spectrum rights. The rationale for making available temporary spectrum rights is well presented in the consultation document. We note that the further licensing framework will be identical to the current regime for a period of up to 6 months with the exception that the relevant technical conditions of the 2.1 GHz and 2.6 GHz bands will be updated to reflect recent EC Decisions. In our submission we suggested it would be helpful if ComReg issued a reminder that the temporary licences should not be used to develop new business models such as 5G. eir notes ComReg's statement at paragraph 4.28 that "*MNOs can utilise the 700 MHz Duplex where they have existing equipment and use the 2.1 GHz Band **for 4G use at certain sites to assist in dealing with the increase in data traffic***" [emphasis added]. This appears to align with our understanding that the temporary licences are for 4G use only.

However ComReg then states at paragraph 4.30; "*While the purpose of the temporary spectrum rights is to provide capacity for immediate use using existing infrastructure and not enabling new technologies or 5G, it is also the case that the above EU decisions are applicable and ComReg therefore proposes to update the relevant technical conditions of the 2.1 GHz and 2.6 GHz bands to reflect the above EC Decisions for these bands.*" Paragraph seems to suggest that 5G use may be permissible in the 2.1GHz and 2.6GHz bands. eir requests that ComReg unambiguously clarifies the status of 5G use in the temporary spectrum rights.

The requested clarification aside, eir agrees with ComReg's proposed second further temporary spectrum rights regime.

As noted in our previous submission, the temporary licences will continue to have a best efforts coverage obligation to provide capacity at critical location based on a list of critical locations that may be published. eir notes that such a list has not been published to date. Should this element of the licensing framework be activated, eir requests that as much advance notice as possible be given in respect of the location of temporary emergency facilities to facilitate the deployment of sufficient fixed and mobile network capacity.

Finally, eir would like to take this opportunity to once again thank the ComReg officials for progressing consideration of the further licensing framework expeditiously.

Imagine Communications Group

Mr. Joseph Coughlan
Commission for Communications Regulation One Dockland Central Guild Street
Dublin 1
D01 E4X0
Ireland

10th March, 2021

Re: Non-Confidential response to COVID-19: Temporary spectrum management measures (ComReg 21/16)¹

Dear Joseph,

Imagine agree with the proposed decision to extend the Temporary ECS Licences as set out in Section 5 of the Draft Decision document.¹

As stated in our response to the consultation² and in line with the views expressed by the MNO in their common letter³ Imagine expect that elevated traffic levels due Covid-19 will be sustained for some time to come.

Imagine note the statement in section 2.35 of the document¹ relating to its temporary spectrum licensing with MNOs and DenseAir and hope to agree a further six-month period of the respective leases and will notify ComReg very shortly of these agreements for its consideration.

Yours sincerely,

Mike Stacey
Chief Technology and Innovation Officer
Imagine Communications Group

¹ ComReg 21/16, COVID-19: Temporary spectrum management measures, Second further temporary spectrum rights in the 700 MHz Duplex, 2.1 GHz and 2.6 GHz Bands

² ComReg 21/05, COVID-19: Potential Further Temporary ECS Licensing

³ Annex 3, ComReg 21/16, COVID-19: Temporary spectrum management measures, Second further temporary spectrum rights in the 700 MHz Duplex, 2.1 GHz and 2.6 GHz Bands

Three Ireland (Hutchison) Limited



Three Ireland (Hutchison) Limited.
Registered Office:
28/29 Sir John Rogerson's Quay,
Dublin 2, Ireland.

10th March 2021

Joseph Coughlan
Commission for Communications Regulation
1 Dockland Central
Guild Street
Dublin 1
D01 E4X0

Dear Joseph

Temporary Spectrum Measures – Document 21/16

Three notes the proposals by ComReg to provide for a further extension to the temporary spectrum measures which were introduced to aid the response to Covid-19 containment. Subject to our comments below, Three supports the proposals as outlined by ComReg in document 21/16. At this time, we are still at Level 5 within the Government's plan for recovery from Covid-19 ("COVID-19 Resilience and Recovery 2021: The Path Ahead") and it seems that restrictions will be only gradually removed. As a consequence, the need for such spectrum is on-going.

EC Decision 2012/688/EU as amended by EU 2020/667 required that the 2100MHz band is "liberalised", whereas current licences in Ireland restrict use of the band to 3G services only. One of the temporary spectrum measures introduced by ComReg in April 2020 was to liberalise this band on a temporary basis, and it seems that all three licensees have made use of this temporary liberalisation to improve the service they provide to end users. Subsequent to the first introduction of the temporary spectrum measures in 2020, ComReg has also decided that existing licences in the 2100MHz band should be liberalised on a permanent basis (ComReg Document 20/122, D11/20). Having made the decision to liberalise the existing licences on a permanent basis and taking account of the fact that this part of ComReg's Decision has not been the subject of a statutory appeal, ComReg should proceed with the process to now amend those licences rather than requiring a series of temporary licences to provide for essentially the same thing in the 2100MHz band.

Yours Sincerely

Tom Hickey

Vodafone Ireland Limited



Non - Confidential Version

COVID-19: Temporary spectrum management measures

**Second further temporary spectrum rights in the 700 MHz Duplex, 2.1 GHz
and 2.6 GHz Bands**

Response to Consultation ComReg 21/16

Introduction

Vodafone are grateful for the opportunity to respond to **ComReg consultation 21/16. COVID-19: Temporary spectrum management measures. Second further temporary spectrum rights in the 700 MHz Duplex, 2.1 GHz and 2.6 GHz Bands.**

We wish to acknowledge the exceptional work ComReg have completed in working co-operatively with Mobile Operators throughout this crisis and in implementing these Temporary Measures.

In the introduction to this consultation ComReg recognise the challenges facing the Irish state in dealing with the on-going effect of a global pandemic.

The temporary measures implemented by ComReg in March 2020 have enabled mobile operators to provide telecommunications support to all their customers in Ireland throughout the period of significant change to work and social patterns that we have seen over the last year.

As note in section 3.4.1 of ComReg's document. Factors supporting a further temporary spectrum release there are no firm predictions about how the COVID-19 pandemic will evolve over the coming period and we are still experiencing changes in network traffic not foreseen pre Covid. Not only has demand for Mobile data services increased by much higher levels than forecast but the geographic spread of demand has changed considerable during this emergency. It is unknow when or indeed whether these traffic patterns will return to the pre-Covid distribution. For this reason, some further extension of Measures may be required past the 1 October 2021 date now foreseen.

Using our Pre-Covid spectrum assignments, we could only add this additional capacity by building new radio sites; this cannot be done quickly enough to support the rapidly changing demand caused by the measures government are taking to control the spread of Covid.

Forecast Traffic and effect of not extending the Spectrum Measures.

As we submitted to ComReg, we now expect the growth in demand for this year to be more than double that forecast pre-Covid.

Absent an extension of the Temporary Spectrum measures We would likely see a considerable increase in congested cells in the network and a degradation of service for all customers. Without this additional spectrum, it is likely that greater than [REDACTED] of sites would experience congestion, resulting in reduced data rates or interrupted data services for many customers.

Plan to use an Extension of the Temporary Measures.

To continue to provide an excellent service to customers, and to meet the challenges posed by changing locations and times of traffic, we have submitted to ComReg a detailed Radio plan to use these Temporary Measures.

Using 700 MHz spectrum at existing sites will significantly increase capacity in the most congested areas of the network. Sites in this band are particularly useful in rural areas where traffic has increased most significantly.

The MBSA

We note that in paragraph 1.7 ComReg stresses that the any extensions of the Temporary ECS Licencing Frameworks are “are entirely without prejudice to ComReg’s Multi-Band Spectrum Award (referred to herein as the “MBSA2”).

We strongly agree with this position. Completing the MBSA2 is vital for support of long-term investment in telecommunications in Ireland. It will enable Vodafone to make long-term capital expenditure decisions, building additional coverage and bring new services to our customers. We see the completion of the auction as a facilitator for 5G, an important aspect of general economic and social development in Ireland for the foreseeable future.

Effect on competition

We note that, based on our joint request, ComReg assumes (in paragraph 3.38) that the MNOs are satisfied that “any further licensing framework implemented on such basis” would be unlikely to materially distort competition between them. On balance we agree that the current proposal to extend the Measures for a period of up to six months will not materially distort competition.

Supporting Other Telecommunications Providers.

All operators have worked co-operatively to ensure Temporary Measures introduced in April 2020 were implemented without generating interference to other communications services.

The additional network capacity released to mobile operators by these measures has also facilitated the leasing of 3.5GHz spectrum to Fixed Wireless operators, improving the services they can provide.

Conclusion

In conclusion we agree that ComReg are fully justified in extending these Temporary Spectrum measures for the further period proposed. Vodafone will apply for permission to use these measures and continue to add to their network to maintain excellent service for customers.