

COVID-19: Further temporary spectrum management measures

Response to Consultation and Decision on a 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

Reference: ComReg 20/88

Decision D08/20

Date: 29/09/2020

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Chapter 1

1 Introduction

- 1.1 On 18 September 2020, ComReg published Document 20/86R¹ in which it proposed to implement a further COVID-19 temporary spectrum licensing framework for a period of up to 6 months given the temporary and extraordinary situation presented by COVID-19² and the measures taken by the Irish Government since March 2020³ (hereinafter termed the "Temporary Situation") (the "Proposed Approach").
- 1.2 ComReg received submissions⁴ from the following interested parties to Document 20/86R:
 - 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 This document sets out ComReg's response to consultation and final decision in respect of the proposed further temporary spectrum licensing framework.

Structure of document

1.4 This document is structured as follows:

Since then, the Government has continued to revise its advice and measures to reflect developments relating to COVID-19. See section 2.1 of Document 20/86R and section 2.1 of this document for further details.

¹ Document 20/86R "Covid-19 Temporary Spectrum Management Measures – Further temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz Bands" – original version, published 18 September 2020, revised version published 21 September 2020.

² COVID-19 is a new illness that can affect your lungs and airways and is caused by a virus called coronavirus.

³ In March 2020, the Irish Government announced a suite of measures to tackle the extraordinary situation arising from the spread of COVID-19 in Ireland, including:

the closing of schools, colleges and childcare facilities;

the cancelation of large public gatherings;

requiring people to stay at home except in specific circumstances, such as "travel to and from work, or for purposes of work, only where the work is an essential health, social care or other essential service and cannot be done from home."

encouraging people to work from home where possible.

⁴ The non-confidential versions of these submissions are published in Annex 4.

- **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;
- **Chapter 3:** considers whether it would be appropriate in principle to provide for a further temporary spectrum licensing framework in light of the Temporary Situation, and summarises ComReg's proposal in Document 20/86R, the views of respondents, and ComReg's assessment of same;
- **Chapter 4:** sets out ComReg's proposals for a further temporary spectrum licensing framework, and summarises ComReg's proposal in Document 20/86R, 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 proposed assignment of temporary spectrum rights of use by ComReg;
- Annex 4: sets out the non-confidential submissions to Document 20/86R.

Chapter 2

2 Background Information

- 2.1 In Chapters 1 and 2 of Document 20/86R, ComReg set out some background information to its proposals, including:
 - COVID-19 and the Government measures adopted
 - network traffic information since the adoption of the Government measures,
 - consumer information, mobile voice and data;
 - the existing Temporary ECS Licensing framework and licences issued:
 - other supporting actions: spectrum leasing; and
 - the legal framework relevant to this consultation (see Annex 2).
- 2.2 In this chapter, ComReg sets out updated information relevant to this material.

2.1 Updated Information

COVID-19 and the Government's measures to address same

- 2.3 On 15 September, the Government published its 'Resilience and Recovery 2020 2021: Plan for Living with COVID-19'5, which sets out 5 levels of restrictions for controlling the spread of COVID-19. Using this framework, the Government intends to review what it deems the appropriate levels to apply nationally or locally as the Temporary Situation evolves.
- 2.4 As of 28 September 2020⁶,
 - level 2 restrictions apply nationally; and
 - level 3 restrictions are in place in Dublin, from midnight 18
 September for 3 weeks; and

⁵ https://www.gov.ie/en/publication/e5175-resilience-and-recovery-2020-2021-plan-for-living-with-covid-19/

⁶ https://www.citizensinformation.ie/en/health/covid19/public_health_measures_for_covid19.html

 level 3 restrictions are in place in Donegal, from midnight 24 September for 3 weeks.

ComReg network industry forum - network traffic

2.5 Since Document 20/86R was published, one additional weekly network performance report was compiled by ComReg's network industry forum, that of 21 September 2020. Updated information from this is presented below.

Mobile Networks Aggregate Peak Increase

- 2.6 Figure 1 below presents updated aggregate monthly change in voice and data peak traffic on the mobile networks from April to September 2020.
- 2.7 Similar to the information set out in Document 20/86R, ComReg notes that peak traffic in September remains significantly greater than the pre-COVID-19 base levels.

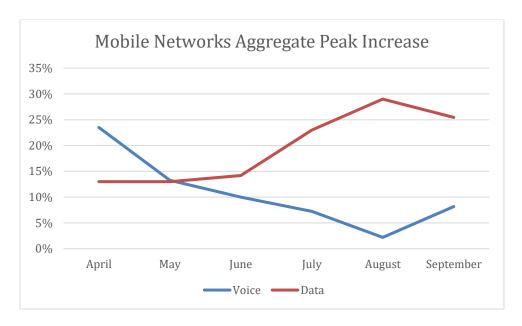


Figure 1: Mobile Networks Aggregate Peak Increase⁷

Weekly network operator performance report

2.8 From the most recent weekly network operator performance report, compiled on 21 September 2020, ComReg observes that for the mobile networks:

⁷ Note that these <u>peak</u> increases are above a base level before the COVID-19 government restrictions were put in place, and do not take account of typical seasonal or annual variations in traffic.

- the weekly aggregate voice and data <u>peak</u> traffic remains circa 8% and 24% greater than the base pre-COVID-19 level, respectively; and
- the weekly peak traffic increases on individual mobile networks compared to pre-COVID-19 levels, as set out in Table 1 below, has been relatively consistent with the percentage levels for 21 September being broadly typical of recent weeks⁸.

Table 1: Individual Mobile Network Operator traffic increases (data as at 21 September 2020) [⊀REDACTED ⊁] 9

MNO	Voice traffic increase	Data traffic increase
Meteor	[× = ×]	[* *]
Three	[× = ×]	[× ×]
Vodafone	[× ×]	[* *]

2.9 Weekly network information is also collected from Imagine in relation to its fixed wireless network. Based on its network operator performance report of 21 September, Imagine's network experienced a <u>peak</u> data traffic increase of [>] compared to pre COVID-19 levels. ComReg observes that this percentage level increase is higher than that of the mobile networks and is also broadly typical of the percentage increase on Imagine's network for recent weeks.

Spectrum Leasing

- 2.10 Since Document 20/86R was published, ComReg has:
 - determined that proposed lease of spectrum rights in the 3.6 GHz band from Dense Air Limited to Imagine would not be likely to distort competition and the proposed lease may be put into effect for a period of six months from 22/09/2020¹⁰; and

⁸ For the network weekly report of 21 September 2020, ComReg observes that voice and data traffic on <u>all</u> operator networks has continued to remain stable with a slight decrease in mobile data traffic and a slight increase in mobile voice traffic which is most likely due to students being back at school.

⁹ Note that these <u>peak</u> increases are above a base level before the COVID-19 government restrictions were put in place, and do not take account of typical seasonal or annual variations in traffic.

Document 20/87, "Spectrum Lease Determination: Proposed lease of spectrum rights in the 3.6 GHz band from Dense Air Limited to Imagine Communications Ireland Limited", published 22 September 2020.

• received a notification from Imagine and the three MNOs of their proposals to lease spectrum rights in the 3.6 GHz band to Imagine for a period of six months. ComReg intends to publish this shortly.

Chapter 3

3 Appropriateness of a further temporary spectrum licensing framework

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

3.1 Summary of Document 20/86R

- 3.2 In Chapter 3 of Document 20/86R, ComReg set out its preliminary observations and assessment on whether it would be appropriate to implement a further COVID-19 temporary spectrum licensing framework given the Temporary Situation.
- 3.3 Section 3.1 outlined the key points from Document 20/64¹¹ where ComReg set out guidance regarding its likely information requirements and the next steps in considering any further temporary licensing framework. This included the submission of:
 - (i) a joint or common request to ComReg setting out the specific details of the joint/common request; 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 further temporary spectrum licensing framework. This noted that:
 - on 2 September 2020, 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 20/27 are extended unchanged" and stated that their "preference is that the new end date is set at the completion of the planned spectrum award."

¹¹ https://www.comreg.ie/publication/covid-19-temporary-ecs-licensing-july-2020-update-and-next-steps-in-considering-any-further-temporary-licensing-framework

- each of the MNOs separately submitted supporting information as listed in paragraph 16 of Document 20/64 in support of their common request.
- 3.5 Section 3.3 set out (i) ComReg's observations on the factors supporting the consideration of another temporary spectrum release and (ii) some additional considerations. Overall, ComReg observed in paragraph 3.27 of Document 20/86R that there are several factors which support a further temporary spectrum release.
- 3.6 Section 3.4 outlined ComReg's preliminary assessment of whether a 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 20/86R

- 3.7 The three MNOs and Imagine are supportive of ComReg's proposals for a further temporary spectrum licensing framework, noting the reasons set out in Document 20/86R, including that the existing temporary spectrum rights have enabled the MNOs to provide services and keep people connected during the Temporary Situation. Imagine and Vodafone provided additional views which are outlined below.
- 3.8 First, Imagine believes that the Government's publication of the "Resilience and Recovery 2020-2021 Plan for Living with COVID-19" supports the view that the elevated traffic levels due to the Temporary Situation will be sustained and that normal traffic growth patterns will occur in addition to this. In addition, Imagine acknowledges the support of ComReg and the MNOs in facilitating Imagine's use of currently unused MNO spectrum assignments in the 3.6GHz band through the issue of spectrum lease licences. In relation to paragraph 1.18 of Document 20/86R, Imagine supports the proposal to agree a further six-month period for spectrum leases.
- 3.9 Second, Vodafone comments on the recent additional COVID-19 measures adopted in Dublin, which it believes will drive new changes in work and social patterns and hence changes in local demand patterns for telecommunication services. As an example, Vodafone notes that many third level colleges are announcing that a large proportion of their lectures and exams will happen online and it submits that this "will drive additional demand in new localities".
- 3.10 Vodafone notes that absent further temporary spectrum rights, it could only meet such additional demand by building new radio sites, to which it submits:

- this cannot be done quickly enough to support the rapidly changing demand caused by the introduction of Government measures to control the spread of COVID-19; and
- it would be very inefficient noting the short period from now to the "auction of additional mobile spectrum in early 2021".

3.3 ComReg's assessment of respondent's views

- 3.11 ComReg notes that all respondents to this consultation support ComReg's proposals to put in place a further temporary spectrum licensing framework for the Temporary Situation for the reasons set out in Document 20/86R.
- 3.12 In addition, ComReg observes that this position is further supported by:
 - the additional views of Imagine and Vodafone outlined above which suggest that elevated traffic levels are likely to continue with the Temporary Situation, and that additional demand may occur in new localised areas given, for example, the recent Level 3 restrictions in Dublin, and the potential for further localised measures;
 - the updated network traffic information in Section 2.1 of this Document, where the latest weekly aggregate mobile voice and data peak traffic levels show a circa 8% (voice) and 24% (data) traffic increase compared to the base pre-COVID-19 level.
- 3.13 In relation to spectrum leases in the 3.6 GHz band, ComReg notes that Imagine and the MNOs have recently submitted a 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.

3.4 ComReg's final view

3.14 Considering the above, and ComReg's rationale as set out in Chapter 3 of Document 20/86R, ComReg is of the view that the Proposed Approach is 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

Chapter 4

4 ComReg's licensing proposals

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

4.1 Summary of Document 20/86R

- 4.2 In Chapter 4 of Document 20/86R, ComReg
 - provided a summary of the key licensing elements in ComReg's existing Temporary ECS Licensing Framework including: the spectrum bands, assignments and compatibility considerations; applicant eligibility and the supporting information requirements¹²; licence duration; fees; and coverage obligations;
 - set out the relevant information from the MNO requests on the licensing proposals for any further temporary licensing framework, noting in particular that the MNOs expressed a preference that "the new end date is set at the completion of the planned spectrum award".; and
 - outlined its preliminary assessment on the material received from the MNOs and its preliminary view that any further Temporary ECS Licencing framework should have the same licensing conditions as currently used in the Existing Temporary ECS Licensing Framework.

4.2 Views of respondents

4.3 All four respondents broadly support ComReg's licensing proposals, although specific comments are provided by Eir and Three in relation to the proposed duration and coverage obligations.

Duration

4.4 In relation to ComReg's proposed 6-month duration, based on a 3-month further licence, and a potential renewal of up to 3 months for the remainder of the time period up to 7 April 2021:

¹² See Section 4.1.2 of Document 20/86R

- Eir notes that while it requested licences to be available until the
 conclusion of ComReg's proposed multi band spectrum award
 ("Proposed MBSA") for "administrative efficiency" reasons, it believes
 that the duration of the further licensing framework "is a moot point at
 the current time" given its view that a period of 6 months would closely
 align to the timing of the Proposed MBSA;
- Eir further welcomes ComReg's statement at paragraph 4.29 of Document 20/86R that "ComReg would, of course, continue to monitor the situation over the term of any 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 any licensing beyond this period"; and
- Three believes that ComReg's proposed duration, which would see any new further licences expiring on 7 January 2021, is not an *ideal* date for same, and suggests that a minimum additional period of two weeks before expiry (to 21 January) would be warranted. The reasons provided by Three in this regard include that:
 - even in normal times, Christmas is treated as an important time for mobile networks and services and it is common to have a "network freeze" in place from early December to early January;
 - the Christmas time period would pose difficulty in assessing the need for any renewal of the licences, as this would need to be carried out a couple of weeks before licence expiry,
 - if there were to be no renewal of the temporary rights then some network modifications would need to be implemented in advance of the expiry date; and
 - the EECC will be newly in place at this time and will amend the legislative framework. While this is a not significant item, it might add some delay if a further renewal was required.

Coverage obligation

4.5 In relation to the proposed coverage obligation for licensees to provide outdoor coverage on a best efforts basis at specific locations as may be determined by the Government, Eir requests that, should this element of the licensing framework 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.

4.3 ComReg assessment of respondents' views

4.6 ComReg firstly observes the broad support for ComReg's licensing proposals as set out in Document 20/86R.

Coverage obligation

4.7 In relation to Eir's comments, ComReg 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 the Environment, Climate and Communications ("DECC"). Any notice in advance of this is a matter for the Government and DECC.

Licence duration

- 4.8 In relation to the specific comments of Eir that the expiry of the licensing framework should coincide with the conclusion of the MBSA process for "administrative efficiency" reasons, ComReg refers to its reasoning as set out in paragraphs 4.24 to 4.27 of Document 20/86R, where ComReg among other things, notes that "It would clearly not be objectively justified or proportionate to determine the expiry of any further temporary licences by reference to a factor unrelated to the Temporary Situation, i.e. by reference to completion of the Proposed MBSA¹³"
- 4.9 In relation to the specific comments of Three that the expiry of any new further licence should be 21 January 2021 or later (i.e. a minimum additional period of two weeks), ComReg observes that completing the renewal process sufficiently in advance of the expiry date of 7 January 2021 (i.e. in early December 2020) would also address Three's concerns as it would give licensees sufficient time to make any necessary network adjustments in the event that licences are not renewed beyond 7 January 2021.
- 4.10 In this regard, ComReg proposes to contact licensees towards the end of November reminding them that a completed Application Form and the necessary supporting information can be submitted to ComReg from 1 December 2020.
- 4.11 The submission of <u>complete</u> information by this date should facilitate ComReg making its licence renewal assessment in early December 2020, allowing any new renewal licences to be issued shortly thereafter.

¹³ Footnote 62 of Document 20/86R. "Save of course that the assignment of long-term rights of use should not be delayed by any temporary licences."

4.4 ComReg's final view

- 4.12 Considering the above, and ComReg's reasoning as set out in Chapter 4 of Document 20/86R, ComReg has formed the final view that the further Temporary ECS Licencing framework should have the same licensing conditions as currently used in the Existing Temporary ECS Licensing Framework.
- 4.13 Details of this licensing framework are outlined in the further draft "Further Temporary Electronic Communications Services Licences" Regulations set out in Annex 3.

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/EC¹⁴:
- "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/EC¹⁵;
- **"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;

¹⁴ 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.

¹⁵ 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.

- **"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 703 733 MHz paired with 758 788 MHz;
- "700 MHz Duplex Block" means a right of use in respect of a 2x5 MHz block of spectrum in the 700 MHz Duplex;
- "700 MHz EC Decision" means Decision (EU) 2016/687¹⁶;
- "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" (or "ECN") and "Electronic Communications Service" (or "ECS") 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" means a licence of the type set out in draft form in Schedule 1 to the Further Temporary ECS Licence Regulations;
- "Further Temporary ECS Licence Regulations" means the Wireless Telegraphy (FURTHER TEMPORARY ELECTRONIC COMMUNICATIONS SERVICES LICENCES) Regulations, 2020, as set out in draft form in Annex 3 to ComReg Document 20/88;
- "Minister" means the Minister for the Environment, Climate and Communications;
- "MNO" means a mobile network operator with an existing network in Ireland;

¹⁶ 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.

"Relevant Spectrum" means 700 MHz Duplex Blocks, 2.1 GHz Band Blocks, and 2.6 GHz Band Blocks;

"RSPP Decision" means Decision No 243/2012/EU¹⁷;

"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:
 - 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 and 19/124 (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; and
 - g) 20/88;
 - 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 and 19/124c;
 - 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;

¹⁷ Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme.

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

and, noting that it has:

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 20/86 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, to make those regulations under section 6 of the Wireless Telegraphy Act 1926, prescribing relevant matters in relation to Further Temporary ECS Licences, 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 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 in the 700 MHz Duplex and 2.1 GHz bands having regard to the principles generally described in Chapter 4 of Document 20/86R and further particularised in the Further

Temporary ECS Licence Regulations, 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 MNO¹⁸, but where ComReg reserves the right to make alternative assignments in line with its statutory objectives and duties;

b) to grant Further Temporary ECS Licences, 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, including the schedule to Further Temporary ECS Licences as currently set out in Annex 3 of Document 20/88;

2.6 GHz Band

- iii. upon application properly being made to it by an Undertaking for Further Temporary ECS Licences in respect of 2.6 GHz Band Blocks, and following consultation with the Irish Aviation Authority;
 - a) to select which MNOs will be granted Further Temporary ECS Licences with 2.6 GHz Band Blocks having regard to the principles generally described in Chapter 4 of Document 20/86R and further particularised in the Further Temporary ECS Licence Regulations, 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, 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 periods, and subject to the conditions and restrictions (including conditions as to

¹⁸ 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.

- suspension and withdrawal), prescribed in the Further Temporary ECS Licence Regulations, including the schedule to Further Temporary ECS Licences as currently set out in Annex 3 of Document 20/88;
- c) to consider applications for the addition of sites to a Further Temporary ECS Licence 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 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 20/86R and further particularised in the Further Temporary ECS Licence Regulations, and the material provided by applicants in support of their renewal, to renew a Further Temporary ECS Licence for a further period of up to but no longer than 3 calendar months; and
- vi. that any Further Temporary ECS Licence granted or renewed shall in any event expire no later than 6 calendar months from the coming into operation of the Further Temporary ECS Licence Regulations.

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 Document 20/88a contains an Application Form for a Further Temporary ECS Licence. 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 the Environment, Climate and Communications to make the Further Temporary ECS Licence Regulations.
- 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 regulations 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 information¹⁹.

¹⁹ 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 3 400 MHz to 3 800 MHz.
700 MHz Band	The frequency range 694 – 790 MHz.
700 MHz Duplex	The frequency range 703-733 MHz paired with 758-788 MHz.
800 MHz Band	The frequency range 790 – 862 MHz
900 MHz Band	The frequency range 880 – 915 MHz paired with 925 – 960 MHz
2.1 GHz Band	The frequency ranges 1920-1980 MHz paired with 2110-2170 MHz
2.3 GHz Band	The frequency range 2 300 – 2 400 MHz
2.6 GHz Band	The frequency range 2 500 – 2 690 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.

Apparatus	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
Application Form	ComReg Document 20/88a
Appropriate Evidence	The Application Form (Document 20/88a) identifies information including:
	the radio spectrum band applied for;
	the name/identity of the site to be included in the licence;
	the coordinates of the site (easting and northing);
	equipment index reference;
	maximum EIRP for the site;
	confirmation for each site that equipment including antennas are in place to be used in the respective band;
	the key steps needed to bring the site or group of sites on air (if they are not already on air) including the expected dates for this; and
	for each equipment index reference, the terrestrial system, equipment description, manufacturer, make and model of the piece of equipment
COVID-19	COVID-19 is a new illness that can affect your lungs and airways and is caused by a novel strain of the coronavirus (SARS-CoV-2).
Draft Regulations or draft Further Temporary ECS Licence Regulations	Regulations intended to be made by ComReg under the Wireless Telegraphy Act 1926 (as amended), subject to the consent of the Minister for the Environment, Climate and Communications, as currently set out in draft form in Annex 3 to this document.
Existing Temporary ECS	As set out in Document 20/27 and SI 122 of 2020.

Licensing Framework	
Proposed MBSA	ComReg's proposed Multi-Band Spectrum Award. Further information is available at https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/proposed-multi-band-spectrum-award/
Spectrum right of use	Authorisation to use certain radio frequencies subject to such conditions and restrictions as may be prescribed in a licence or by any regulations made by ComReg under section 6 of the Wireless Telegraphy, 1926 (as amended).
Further Temporary ECS Licences	Means a licence of the type set out in draft form in Schedule 1 to the Draft Regulations.
Temporary Situation	Means the temporary impact upon electronic communications networks and services from the extraordinary situation arising from the spread of the disease known COVID-19.

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

BEREC	Body of European Regulators for Electronic Communications
ComReg	Commission for Communications Regulation
CEPT	Conférence européenne des Administration des postes et des télécommunications. In English, European Conference of Postal and Telecommunications Administrations
DECC	Department of the Environment, Climate and Communications

EC	European Commission
ECC	Electronic Communications Committee (of CEPT)
EU	European Union
ITU	International Telecommunication Union

A1.3 Primary and Secondary Legislation

S.I.	Statutory Instrument
2002 Act	The Communications Regulation Act 2002 (No. 20 of 2002), as amended ²⁰
Authorisation Regulations	European Communities (Electronic Communication Networks and Services) (Authorisation) Regulations 2011 (S.I. No 335 of 2011)
Directive 2002/77/EC	A European Commission Directive on competition in the markets for electronic communications networks and services
2.6 GHz EC Decision / EC Decision 2008/477/EC	European Commission Decision on the harmonisation of the 2 500 - 2 690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community
Framework Regulations	European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No 333 of 2011)

²⁰ Includes the Communications Regulation (Amendment) Act 2007 and the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010.

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_	Specific Regulations has the same meaning as set out in Regulation 2 of the Framework Regulations

A1.4 Glossary of Technical Terms

3G	Third Generation Mobile System (e.g. UMTS)
DTT	Digital Terrestrial Television
ECN	Electronic Communications Networks
ECS	Electronic Communications Service as defined under the Framework Regulations
FDD	Frequency Division Duplex
GHz	Gigahertz (1 000 000 000 Hertz)
Hertz	Unit of Frequency
kHz	Kilohertz (1 000 Hertz)
LTE	Long Term Evolution of 3G
MFCN	Mobile/fixed communications networks
MHz	Megahertz (1 000 000 Hertz)
MNO	Mobile Network Operator
TDD	Time Division Duplex
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 Directives²¹ as transposed into Irish law by the corresponding Framework and Authorisation Regulations²²), and the Wireless Telegraphy Acts1926 to 2009²³ 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

²¹ 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").

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.

²³ The Wireless Telegraphy Acts 1926 to 1988 and Sections 181 (1) to (7) and (9) and Section 182 of the Broadcasting Act 2009.

- specific relevance to the matters at hand.
- 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.
- A 2.6 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 2.7 With some limited exceptions (see Article 124 of the EECC), Member States have until 21 December 2020 to transpose the EECC into national law.²⁴ Until then, the existing EU Common Regulatory Framework will continue to apply. However, in reaching the decisions set out in Chapter 5 of this document, ComReg has been mindful of the EECC.
- A 2.8 The DECC is responsible for the transposition of the EECC and ComReg has assisted the DECC in that regard as appropriate.

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 competition²⁵;
 - contribute to the development of the internal market²⁶;
 - promote the interests of users within the Community²⁷;

²⁴ With the exception of Articles 53(2), (3) and (4), and Article 54 (see Article 124).

²⁵ Section 12 (1)(a)(i) of the 2002 Act.

²⁶ Section 12 (1)(a)(ii) of the 2002 Act.

²⁷ Section 12(1)(a)(iii) of the 2002 Act.

- ensure the efficient management and use of the radio frequency spectrum in Ireland in accordance with a direction under section 13 of the 2002 Act²⁸; 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 Regulations²⁹ in particular those designed to ensure effective competition³⁰.

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

²⁸ 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.

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).

³⁰ 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-toend 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 nondiscrimination 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 BEREC

- A 2.18 Under Regulation 16(1)(3) of the Framework Regulations, ComReg must:
 - having regard to its objectives under section 12 of the 2002 Act and its functions under the Specific Regulations, actively support the goals of BEREC of promoting greater regulatory co-ordination and coherence; and
 - take the utmost account of opinions and common positions adopted by BEREC when adopting decisions for the national market.

A2.1.6 Other Obligations under the 2002 Act

- A 2.19 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;³¹
 - have regard to international developments with regard to the radio frequency spectrum³²; and

³¹ Section 12(3) of the 2002 Act.

³² Section 12(5) of the 2002 Act.

 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.³³

A2.1.7 Policy Directions³⁴

- A 2.20 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. Section 13(1) of the 2002 Act requires ComReg to comply with any policy direction given to ComReg by the Minister for the Environment, Climate and Communications ("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 radio frequency the 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 efficient management and use of the radio frequency ensure the spectrum in accordance with a direction under Section 13.
- A 2.21 The Policy Directions which are most relevant in this regard include the following:

Policy Direction No.3 on Broadband Electronic Communication Networks

A 2.22 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.

³³ Section 12(6) of the 2002 Act.

³⁴ 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.

Policy Direction No.4 on Industry Sustainability

A 2.23 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 2.24 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 2.25 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 2.26 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 2.27 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 2.28 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 2.29 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 2.30 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 2.31 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 2.32 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 2.33 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 2.34 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 2.35 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 2.36 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 2.37 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 2.38 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 2.39 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.

Regulation 23 on security and integrity and Regulation 24 on implementation and enforcement of Regulation 23

A 2.40 Regulation 23 provides:

- 23. (1) Undertakings providing public communications networks or publicly available electronic communications services shall take appropriate technical and organisational measures to appropriately manage the risks posed to security of networks and services. In particular, measures shall be taken to prevent and minimise the impact of security incidents on users and interconnected networks.
- (2) The technical and organisational measures referred to in paragraph (1) shall, having regard to the state of the art, ensure a level of security appropriate to the risk presented.
- (3) Undertakings providing public communications networks shall take all appropriate steps to guarantee the integrity of their networks, thereby ensuring the continuity of supply of services provided over those networks.
- (4) (a) An undertaking providing public communications networks or publicly available electronic communications services shall notify the Regulator in the event of a breach of security or loss of integrity that has a significant impact on the operation of networks or services.
- (b) Where the Regulator receives a notification under subparagraph (a), it shall inform the Minister of the said notification and, with the agreement of the Minister, it shall also, where appropriate, inform the national regulatory authorities in other Member States and ENISA.
- (c) Where it is considered that it is in the public interest to do so the Regulator, with the agreement of the Minister, may inform the public in relation to the breach notified under subparagraph (a) or require the undertaking to inform the public accordingly.
- (5) The Regulator shall annually submit a summary report to the Minister, the European Commission and EINSA on the notifications received and the actions taken in accordance with paragraph (4).
- (6) An undertaking that fails to comply with the requirements of paragraph (4)(a) or (c) commits an offence.

A 2.41 Regulation 24 provides:

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- 24. (1) For the purpose of ensuring compliance with Regulation 23 (1), (2) and (3), the Regulator may issue directions to an undertaking providing public communications networks or publicly available electronic communications services, including directions in relation to time limits for implementation.
- (2) The Regulator may require an undertaking providing public communications networks or publicly available electronic communications services to—
- (a) provide information needed to assess the security or integrity of their services and networks, including documented security policies, and
- (b) submit to a security audit to be carried out by a qualified independent body nominated by the Regulator and make the results of the audit available to the Regulator and the Minister. The cost of the audit is to be borne by the undertaking.
- (3) An undertaking in receipt of a direction under paragraph (1) shall comply with the direction.
- (4) An undertaking that fails to comply with a direction under paragraph
- (1) or a requirement under paragraph (2) commits an offence.

A2.2.2 Authorisation Regulations

Decision to limit rights of use for radio frequencies

- A 2.42 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 2.43 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 2.44 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 2.45 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 2.46 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 2.47 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 2.48 Regulation 10(1) of the Authorisation Regulations provides that, notwithstanding Section 5 of the Wireless Telegraphy Act,1926, but subject

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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 2.49 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 2.50 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 2.51 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 2.52 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 2.53 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 2.54 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 2.55 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 2.56 Under Section 5(1) of the 1926 Act, ComReg may, subject to that Act, and Page 46 of 52

- 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 2.57 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 2.58 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 2.59 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 2.60 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 2.61 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.

Broadcasting Act 2009 (the "2009 Act")

- A 2.62 Section 132 of the 2009 Act relates to the duties of ComReg in respect of the licensing of spectrum for use in establishing digital terrestrial television multiplexes and places an obligation on ComReg to issue:
 - two DTT multiplex licences to RTÉ by request (see Sections 132(1) and (2) of the 2009 Act); and
 - a minimum of four DTT multiplex licences to the BAI by request (see Sections 132(3) and (4) of the 2009 Act) for the provision of commercial TV content.

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

A 2.63 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."

Radio Spectrum Policy Programme (RSPP)

A 2.64 On 14 March 2012, Decision No 243/2012/EU (the "RSPP Decision") of the European Parliament and Council, gave effect to the first multiannual Radio Spectrum Policy Programme for the strategic planning and harmonisation of the use of spectrum across the EU. The objective of the

RSPP is to ensure the functioning of the internal market in the Union policy areas involving the use of spectrum, such as electronic communications, research, technological development and space, transport, energy and audio-visual policies.

- A 2.65 Among other things, Article 5 of the RSPP Decision, entitled "Competition", provides that:
 - "1. Member States shall promote effective competition and shall avoid distortions of competition in the internal market for electronic communications services in accordance with Directives 2002/20/EC and 2002/21/EC.

They shall also take into account competition issues when granting rights of use of spectrum to users of private electronic communication networks.

- 2. For the purposes of the first subparagraph of paragraph 1 and without prejudice to the application of competition rules and to the measures adopted by Member States in order to achieve general interest objectives in accordance with Article 9(4) of Directive 2002/21/EC, Member States may adopt, inter alia, measures:
- (a) limiting the amount of spectrum for which rights of use are granted to any undertaking, or attaching conditions to such rights of use, such as the provision of wholesale access, national or regional roaming, in certain bands or in certain groups of bands with similar characteristics, for instance the bands below 1 GHz allocated to electronic communication services. Such additional conditions may be imposed only by the competent national authority;
- (b) reserving, if appropriate in regard to the situation in the national market, a certain part of a frequency band or group of bands for assignment to new entrants;
- (c) refusing to grant new rights of use of spectrum or to allow new spectrum uses in certain bands, or attaching conditions to the grant of new rights of use of spectrum or to the authorisation of new spectrum uses, in order to avoid the distortion of competition by any assignment, transfer or accumulation of rights of use;
- (d) prohibiting or imposing conditions on transfers of rights of use of spectrum, not subject to national or Union merger control, where such transfers are likely to result in significant harm to competition;

- (e) amending the existing rights in accordance with Directive 2002/20/EC where this is necessary to remedy ex post the distortion of competition by any transfer or accumulation of rights of use of radio frequencies.
- 3. Where Member States wish to adopt any measures referred to in paragraph 2 of this Article, they shall act in conformity with the procedures for the imposition or variation of such conditions on the rights of use of spectrum laid down in Directive 2002/20/EC.
- 4. Member States shall ensure that the authorisation and selection procedures for electronic communications services promote effective competition for the benefit of citizens, consumers and businesses in the Union."

Annex: 3 Draft Wireless Telegraphy (Further Temporary Electronic communications Services Licences) Regulations

STATUTORY INSTRUMENTS

S.I. No. of 2020

Wireless Telegraphy (Further Temporary Electronic Communications Services Licences)
Regulations 2020

S.I. No. of 2020

Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) Regulations 2020

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) Regulations 2020.

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;
- "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;
- "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 Isotopically 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" 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;

"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. (1) These Regulations apply to Further Temporary Electronic Communications Services Licences.

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 six calendar months from the coming into operation of these Regulations.

Conditions of Licences

- 6. (1) Any Licensee that is granted a Licence under these Regulations and to which these Regulations apply shall:
 - (a) ensure that it complies with the conditions in its Licence and with these Regulations;
 - (b) ensure that 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
- (1) not Transfer or Lease any rights of use for radio frequencies attaching to a Licence.

Enforcement, Amendment, Withdrawal and Suspension

- 7. (1) Enforcement by the Commission of compliance by a Licensee with conditions attached to its Licence shall be in accordance with the Authorisation Regulations.
- (2) The Commission may amend 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) A Licence may be suspended or withdrawn by the Commission 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. (1) Licences granted pursuant to these Regulations do not grant to the Licensee any right, interest or entitlement other than to keep, have possession of, install, maintain, work and use Apparatus at a specified location or locations in the State.



SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (FURTHER TEMPORARY ELECTRONIC COMMUNICATIONS SERVICES LICENCES) REGULATIONS 2020

Further Temporary Licence 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) Regulations 2020 (S.I. No. of 2020) ("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) Regulations 2020 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

Authoris Band	Name of Spectrum Block		Commencement Date per Spectrum Block	Expiry Date per Spectrum Block
700 MH: Duplex, 2 GHz, 2.6 GHz, as appropria	Block A, B	to ——— MHz		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					
<i>GHz</i> , 2.6 <i>GHz</i>					
as appropriate					

Part 3
Apparatus Location and Details

Authorised Band	Site Identity	Eastings	Northings	Equipment Index Reference	Maximum EIRP
700 MHz Duplex,					
2.1 GHz, 2.6 GHz as					
appropriate					

Part 4

Licence Conditions

Section 1: General

Harmful Interference

1. (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. (1) The following additional definitions shall apply to this Licence:
 - "2RN" means RTÉ Transmission Network DAC (trading as 2rn);
 - "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 and 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;
 - "Indoor Small Cell" means a Base Station with an EIRP of less than or equal to 24 dBm per 20 MHz carrier that is located indoors either within a residential or non-residential property;

"Inter-Licensee 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/m2) 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;

"TDD-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 communicate with a Base Station using spectrum in the 700 MHz Duplex, 2.1 GHz Band and 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. (1) The 700 MHz Duplex

(a) Only terrestrial systems compatible with the Decision of 2016 (as amended) 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 spectrum in the 700 MHz Duplex.

¹ <u>Memorandum of Understanding</u> 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

(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 "Technical conditions for base stations for terrestrial systems capable of providing electronic communications services within the 738-788 MHz frequency band" of the Annex to 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.

3.(1) The 2.1 GHz Band

- (a) Only terrestrial systems compatible with the Decision of 2012 (as amended) 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

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.

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 Memoranda of Understanding ('MoU')³ 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 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 an in-block EIRP power of 64 dBm/5 MHz per antenna.
- (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 Table 1 and Table 2 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 dBm⁴ per 5 MHz for Terminal Stations shall apply⁵.

4. (1) The 2.6 GHz Band

(a) Only terrestrial systems compatible with the Decision of 2008 (as amended) can be worked and used in the 2.6 GHz Band.

(b) Within the 2.6 GHz Band FDD Frequency Generic 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

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 For the determination of out of band emissions of terminals in CEPT Report 39 the maximum conducted transmit power of 23 dBm has been used as a reference.

⁵ 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.

- 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 duplex mode of operation is TDD.
- (d) Licensees in the 2.6 GHz Band TDD Blocks are bound by the Inter-Licensee Synchronisation Procedure.
- (e) The Licensee shall comply with all Memoranda of Understanding ('MoU')⁶ 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 spectrum in the 2.6 GHz Band.

Base Stations

- (f) Within a 2.6 GHz Band FDD Frequency Generic Block and a 2.6 GHz Band TDD Frequency Generic Block assigned to the Licensee, the in-block EIRP from a Base Station transmitter in the downlink direction must not exceed a maximum in-block EIRP of 61 dBm/5 MHz.
- (g) Within the 2.6 GHz Band TDD Fixed Frequency Block (lower) and 2.6 GHz Band TDD Fixed Frequency block (upper) assigned to the Licensee, the inblock EIRP from a Base Station transmitter in the downlink direction must not exceed a maximum in-block EIRP of 25 dBm/5 MHz.
- (h) Outside of 2.6 GHz Band FDD Frequency Generic Block(s) and 2.6 GHz Band TDD Frequency Generic Block(s) assigned to the Licensee, the Licensee shall comply with the unrestricted out-of-block EIRP BEM as specified in Table 1 to Table 3 of the Annex to the Decision of 2008.
- (i) Outside of the 2.6 GHz TDD Band Fixed Frequency Block (Lower) and 2.6 GHz TDD Band Fixed Frequency Block (Upper) assigned to the Licensee, the Licensee shall comply with the restricted EIRP BEM as specified in Table 4 and Table 5 of the Annex to the Decision of 2008.
- (j) Licensees of the 2.6 GHz TDD Band Fixed Frequency Block (Lower) and 2.6 GHz TDD Band Fixed Frequency Block (Upper) acknowledge and accept that

⁶ <u>Memorandum of Understanding</u> 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

- usage of these blocks are subject to a greater risk of interference from adjacent blocks.
- (k) For all 2.6 GHz Band Blocks and in cases where antennas are placed indoors. Alternative parameters in line with Table 5 of the Annex to the Decision of 2008 shall be implemented, provided that at geographical borders with other Member States, Table 1 of the Annex to the Decision of 2008 applies, and that Table 4 of the Annex to the Decision of 2008 remains valid nationwide.
- (m)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

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 <u>www.comreg.ie</u>

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

- B. an in-band Base Station pfd limit of -93 dBW/m² per operator, to address the impact of blocking and intermodulation effects at radar receivers.
- (n) For deployments in compliance with condition (m) 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

(o) The maximum mean in-block power (including Automatic Transmitter Power Control range) of 31 dBm/5 MHz TRP, and 35 dBm/5 MHz EIRP, 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. (1) The following additional definitions shall apply in this section: "Default Frame Structure" means the frame structure as detailed in Figure 1 below;

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

"Unrestricted BEM" means: Operators utilising the Default Frame Structure on their network (and having a common reference phase clock with adjacent channel operators ¹²) are subject to the Unrestricted BEM specified in the Annex of the Decision of 2008, "B. Unrestricted BEM for Base Stations".

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.

¹² Each operator needs to ensure the start of frame is aligned with adjacent channel operators above and below its assignment

"Restricted BEM" means: Operators utilising the Other Frame Structure (or failing to synchronise with adjacent channel networks for any other reason) are subject to the Restricted BEM specified in the Annex of the Decision of 2008, "C. Restricted BEM for Base Stations" and "B. Unrestricted BEM for Base Stations".

Introduction

- 2. (1) Licensees with 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 Unrestricted BEM and the Restricted BEM, so as to minimise the risk of Harmful Interference to other Licensees.

Conditions for using the Unrestricted BEM

- 3. (1) Default Frame Structure The technical conditions for Unrestricted 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 Figure 1. Indicated timeslots (or subframes) must not be allocated to anything other than Downlink (D) and Uplink (U) transmissions. 'S' denotes a special subframe. TD-LTE frame configuration 2 (Downlink: Uplink, 3:1) with special subframe configuration 6 or equivalent frame structures whose transmit and receive periods are aligned with this configuration are permitted;
 - (b) Timeslots shall have a duration of 1 millisecond; and
 - (c) Licensees shall ensure that frames start at a common reference time (+/- $1.5 \mu s$) so that all Licensees' frames are aligned and transmissions synchronised.

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¹³ It is important to note that, in order to meet the restricted mask, operators would likely have to adopt guard bands within their assignment.

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

Figure 1: Default Frame Structure

Conditions for using the Restrictive BEM

- 4. (1) Other Frame Structure the technical conditions for Restricted 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 Restricted 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. (1) Indoor Small Cells with an EIRP not exceeding 24dBm for indoor domestic and other indoor locations are exempted from synchronisation restrictions. The Unrestricted BEM set out in this Section applies to such Indoor Small Cells 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	Best efforts using all rights of use available to the Licensee
	of the Environment, Climate and Communications	

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 2020

Chairperson,

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 2020

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 further temporary licences 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.



Annex: 4 Non-confidential submissions to Document 20/86R

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

Further temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz

Bands

ComReg Document 20/86





DOCUMENT CONTROL

Document name	eir response to ComReg 20/86
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 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. This is consistent with the requests by the mobile network operators with the exception of the duration of the period, noting that the regime has worked well to date with effective coordination between interested parties to mitigate the risk of interference to the benefit of all consumers. We had asked that the licences be available until the conclusion of the MBSA 2. eir's rationale was from the perspective of administrative efficiency. We note that a period of 6 months would be closely aligned to the timing of MBSA 2 based on the most recent timetable made available by ComReg so the decision on the duration of the further licensing framework is a moot point at the current time. In this regard we welcome ComReg's assurance at para. 4.29 that "ComReg would, of course, continue to monitor the situation over the term of any 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 any licensing beyond this period'.

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

23rd September, 2020

Re: Response to COVID-19: Temporary spectrum management measures (ComReg 20/86) 1

Dear Joseph,

Imagine agree with the proposed decisions contained in the consultation document¹ to address ongoing abnormal traffic levels and patterns and, in common with views expressed by the MNO, Imagine expect that elevated traffic levels due Covid-19 will be sustained and normal growth patterns will occur in addition to this.

The publication by the Government of "Resilience and Recovery 2020-2021 – Plan for Living with COVID-19" which sets out restrictions for controlling the spread of COVID-19 over the next 6 to 9 months also supports the view that traffic levels are unlikely to return to pre COVID-19 levels in the near future, if ever.

With that in mind Imagine fully supports the proposed decisions and also acknowledges the support of ComReg and the MNO in facilitating Imagine's use of unused MNO spectrum assignments in the 3.6GHz band through Spectrum Lease Licences.

In relation to section 1.18 of the document¹ regarding Spectrum Lease Licences Imagine support the proposal to agree a further six-month period for these.

Yours sincerely,

Mike Stacey

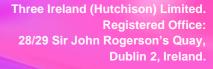
Chief Technology and Innovation Officer

Imagine Communications Group

ComReg 20/86, COVID-19: Temporary spectrum management measures, Further temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz Bands



Three Ireland (Hutchison) Limited





23rd September 2020

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

Dear Joseph

Temporary Spectrum Management Measures – Document 20/86

Three welcomes the publication of Document 20/86 outlining ComReg's proposals to extend the temporary spectrum measures introduced in the context of the Covid-19 pandemic. We appreciate the work carried out by ComReg on this matter to date, which has without doubt helped to keep people connected during these unusual times.

Overall, Three supports ComReg's proposals. We note in relation to the duration of the extension that ComReg proposes to issue the Further Temporary ECS Licences for a period of up to 3 calendar months, which would see them expire on 7th January 2021 at the latest. We would highlight that even in normal times Christmas is treated as an important time for mobile networks and services and it is common to have a "network freeze" in place from early December to early January. We believe 7th January is not an ideal time for the Further Temporary ECS Licences to expire for a number of reasons. These include difficulty in assessing the need for any further continuation of the licences as this would need to be carried out a couple of weeks before expiry, also if there is to be no further extension then some network modifications will need to be implemented in advance of the expiry date. We also note that the EECC will be newly in place at this time and will amend the legislative framework. While this last point is a not significant item, it might add some delay if a further extension was required. We suggest that a minimum additional period of two weeks before expiry (to 21st January) would be warranted to allow ComReg and network operators to deal with the above matters.

Yours Sincerely

Heaver Oll

Tom Hickey

Vodafone Ireland Limited



Confidential Version

COVID-19: Temporary spectrum management measures

Further temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz

Bands

Response to Consultation ComReg 20/86

Introduction

Vodafone are grateful for the opportunity to respond to **ComReg consultation 20/86**. **COVID-19: Temporary spectrum management measures** Further temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz Bands.

We wish to acknowledge the exceptional work ComReg have completed in working cooperatively 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 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 six months.

Unfortunately, the Covid-19 emergency is still with us and we are still experiencing unforeseen change. The recent additional measures the Government has announced in Dublin will drive new changes in work and social patterns and hence changes in local demand patterns for telecommunication services. An example of this change is that many third level colleges are announcing that a large proportion of their lectures and exams will happen on-line. This will drive additional demand in new localities.

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. Another important consideration is that ComReg have now published a Draft Information memorandum for the auction of additional mobile spectrum in early 2021, hence it would be very inefficient to build new sites to cover the short period from now to the planned auction date.

Forecast Traffic and effect of not extending the Spectrum Measures.

The period September to December has historically been the period of the year with the greatest increase in telecommunications traffic. 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 will not be able to build new sites quickly enough to meet this traffic demand. We would then 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 16% 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.

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.