



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Short-term licensing framework for spectrum rights in the 700 MHz and 2.1 GHz Bands from October 2022

Measures to avoid consumer disruption

Response to Consultation, Decision and final Draft Regulations

Reference:	ComReg 22/78
Decision No:	D07/22
Date:	21/09/2022

Legal Disclaimer

This document contains a response to consultation and a decision, which is set out in Chapter 5 (“**Decision**”). Whilst all reasonable efforts have been made to ensure that its contents are as complete, up-to-date and accurate as possible, the Commission for Communications Regulation (“**the Commission**” or “**ComReg**”) does not make any representation or give any warranties, express or implied, in any of these respects, nor does it accept any responsibility for any loss, consequential loss or damage of any kind that may be claimed by any party in connection with this document or its contents, or in connection with any other information or document associated with this document, and the Commission expressly disclaims any liability in these respects. Save for the Decision, and save where explicitly stated otherwise, this document does not or does not necessarily set out the Commission’s final or definitive position on particular matters at this time.

Where this document expresses the Commission’s views regarding future facts and/or circumstances, events that might occur in the future, or actions that the Commission may take, or refrain from taking, in the future, such views are those currently held by the Commission, and, except in respect of the Decision or where the contrary is explicitly stated, such views should not be taken as the making of any statement or the adoption of any position amounting to a promise or representation, express or implied as to how it will or might act, or refrain from acting, in respect of the relevant area of its activity concerned, nor, in particular, to give rise to any expectation or legitimate expectation as to any future action or position of the Commission, and the Commission’s views may be revisited by the Commission in the future. No representation is made, nor any warranty given, by the Commission, with regard to the accuracy or reasonableness of any projections, estimates or prospects that may be set out herein, nor does the Commission accept any responsibility for any loss, consequential loss or damage of any kind that may be claimed by any party in connection with same, and the Commission expressly disclaims any liability in these respects.

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. The Commission will seek to limit or exclude liability on its part insofar as any such limitation or exclusion may be lawful.

Content

Section	Page
Executive Summary	7
1 Introduction and context.....	13
1.1 Introduction	13
1.2 700 MHz and 2.1 GHz bands - the prevailing circumstances.....	14
1.3 Amendment of the MBSA2 Regulations.....	21
1.4 Structure of document.....	22
2 Background Information	24
2.1 The 700 MHz and 2.1 GHz bands.....	24
2.2 Mobile voice and data traffic information for last 5 years	32
3 Short-Term ECS Licensing Framework	35
3.1 Introduction	35
3.2 Summary of ComReg's proposals in Document 2/72.....	35
3.3 Views of Respondents to Document 22/72	40
3.4 ComReg's final position	42
3.5 Summary of ComReg's final positions	44
4 Radio Spectrum Fees	45
4.1 Summary of ComReg's view in Document 22/72.....	45
4.2 Summary of Respondents Views	47
4.3 ComReg's assessment of respondents' views.....	53
4.4 ComReg's final position on spectrum fees	83
4.5 Fee comparison of the different approaches considered	84
5 Decision.....	87
6 Next Steps.....	91
6.1 Next Steps.....	91

Annex

Section	Page
Annex 1: Glossary	92
Annex 2: Legal Framework and Statutory Objectives	98
Annex 3: Draft Licensing Regulations	114
Annex 4: Final 'short-term assignment' RIA.....	136
Annex 5: Other matters raised by MNOs	151
Annex 6: Non-confidential submissions to Document 22/72.....	154

Table of Figures

Section	Page
Figure 1. Status of European countries that have awarded long-term licences in the 700 MHz Band.....	26
Figure 2. The current spectrum assignments and licensees in the 700 MHz band	27
Figure 3. The current spectrum assignments and licensees in the 2.1 GHz band.....	29
Figure 4. Rate of deployment of sites in the 700 MHz and 800 MHz bands	31
Figure 5. Mobile data volumes and annual percentage growth	33
Figure 6. Mobile voice minutes and annual percentage growth.....	34

Table of Tables

Section	Page
Table 1: Number of sites deployed per MNO in the 700 MHz and 2.1 GHz bands.....	30
Table 2: Level of data and voice traffic per MNO in the 700 MHz and 2.1 GHz bands..	32
Table 3: Proposed fees for short-term licences	47
Table 4: Approaches below market value.....	70
Table 5: Final fees for short-term licences.....	83
Table 6: 3-month fees for 2 × 5 MHz in 700 MHz and 2.1 GHz Bands.....	85

Executive Summary

1. On 21 July 2022, Mr. Justice McDonald made an order granting Three Ireland (Hutchison) Limited and Three Ireland Services (Hutchison) Limited (collectively referred to as “Three”) its stay application preventing ComReg from commencing the Main Stage (i.e., Auction) of the Multi-Band Spectrum Award (“MBSA2”)¹, pending the judgment on the substantive appeal by Three from Mr. Justice O’ Moore. Due to the stay, ComReg cannot complete the MBSA2 auction prior to expiration of current rights of use, meaning that, **significant disruption to consumers services** may arise absent intervention.
2. On 22 July 2022, ComReg requested views and supporting information on the potential issue of short-term rights of use in the 2.1 GHz band and possibly other spectrum bands in the MBSA2 award (Document 22/63).

Consultation Document 22/72

3. On 23 August 2022, ComReg published a consultation and draft decision (Document 22/72) containing proposals on a short-term licensing framework for 700 MHz and 2.1 GHz spectrum to mitigate any consumer disruption given the expiry of licences commencing on 1 October 2022. The key proposals included that:
 - national licences would be made available to the incumbent licensees with expiring licences in October 2022 (i.e., the three Mobile Network Operators (“MNOs”)), up to but not exceeding their existing holdings in the bands, on receipt of a completed application, and the relevant fees;
 - a licence would run for up to three months, in keeping with views expressed by Mr. Justice McDonald, with the possibility of a further licence for up to a 3-month period, although the expectation is that this would be unlikely; and
 - the spectrum fees would be set at an approximation of the market value for the band and adjusted for the short-term duration, and were as follows:
 - **700 MHz:** €401,000 per 2 × 5 MHz block per 3-month period; and
 - **2.1 GHz:** €212,000 per 2 × 5 MHz block per 3-month period.

Responses received to consultation Document 22/72

4. ComReg received responses from the incumbent licensees, the MNOs, Eir, Three and Vodafone. In the main, the MNOs supported ComReg’s proposals,

¹ The [MBSA2](#) is the award process to assign long-term rights of use in the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands. See ComReg webpage “Multi Band Spectrum Award 2021” available at www.comreg.ie

with the exception of the proposed spectrum fees, which, among other things, they claim are “excessive”, “create a barrier to take-up” and “punitive”.

5. Absent the running of the MBSA2 auction, it falls on ComReg to make a **complex evaluative determination** about the appropriate fees for the short-term licences that (i) reflect the need to ensure the optimal use of the radio spectrum and (ii) which are objectively justified, transparent, non-discriminatory, and proportionate.

ComReg does not accept the MNO’s view that short-term licences have a nominal or low value

6. The three incumbent MNOs have sought an assortment of different and often conflicting approaches to setting fees. However, the preference for Three is that ComReg charges only nominal fees that merely cover ComReg’s costs. Eir suggests a very large discount to similar effect, while Vodafone advocates for substantially lower fees for the 700 MHz band than ComReg proposed. Generally, the preferences expressed form part of a narrative that the spectrum rights of use are of little value to the MNOs, but they are willing to take the licences to prevent the consumer disruption that might otherwise arise.
7. ComReg does not agree. In ComReg’s view, the value of the spectrum now subject to the short-term licences is significant. In particular, it is important to appreciate that these are not purely *de novo* licences but they arise in the context of the existing licensing situation set against the backdrop of market developments over the past 2½ years and the services being provided to paying customers. In particular, ComReg notes that:
 - (i) each of the three MNOs has enjoyed access to valuable 700 MHz spectrum **worth approximately €27 million in total for the last 2½ years at a licence cost of just €1,000 per MNO**. This arose solely because of the unprecedented COVID-19 emergency, and the COVID-19 Temporary ECS Licensing framework, the terms and conditions for which the three incumbents readily accepted;
 - (ii) data provided to ComReg by the MNO’s over the past 2½ years shows that all three MNOs have improved their networks and services, rolling out further 4G services underpinned by the aggregate build out of 3,575 mobile sites in the 700 MHz band, a prodigious average rate of over 27 sites per week from a standing start. However, despite the use made of these licences to date (now that the basis for COVID-19 Temporary ECS Licences has passed), and the fact that a stay was **supported by all of the MNOs**, the MNOs’ general position is that the value of these licences to them is very limited.
 - (iii) MNOs are benefiting from the liberalisation of 2.1 GHz spectrum rights. The MBSA2 Decision provided for this considering among other things that long-term licences would be award shortly afterwards in the MBSA2 award;

- (iv) MNO networks are now serving approximately **425,000 more subscribers** compared to the start of the COVID-19 Temporary ECS Licences in 2020;
 - (v) mobile retail revenues for the first 6 months of this year increased 4.1% (YoY) to €789 million - the highest in a decade for the period.
 - (vi) Mobile data volumes have increased by around **80% since the start of 2020**, and the 700 MHz and 2.1 GHz bands carry between [✕ ██████████ ✕] of all mobile data traffic (depending on the operator) and between [✕ ██████████ ██████████ ✕] of all mobile voice traffic (depending on the operator); and
 - (vii) MNOs increased the price of mobile plans even prior to the current 'cost of living' crisis. Price increases appear likely to continue, with Three, Vodafone and Eir all announcing plans for further **above-inflation** increases on an annual basis.
8. In these circumstances, ComReg does not accept that the value of the short-term licences to be awarded to the three incumbent MNOs is nominal or low. Indeed, with above-inflation price increases and highest total mobile revenues in a decade, the provision of these rights of use at nominal or reduced prices could well raise questions as to whether incumbents are in fact benefitting from a potentially **unjustifiable windfall**.

Setting fees to reflect market value is appropriate

- 9. In setting fees, ComReg must not set fees so low that it undermines efficient spectrum use thereby risking **distorting competition**, firstly, among the three incumbent MNOs by providing Vodafone and Three with access to comparable 2.1 GHz spectrum at a considerably lower price than that paid by Eir, but also vis-à-vis other operators, such as Imagine, who compete at the margins with MNOs in providing services such as wireless broadband.
- 10. Further the assignment of long-term rights of use will take place at some point. Fees for short-term licences **should not distort the incentives for operators to continue to make efficient decisions** now concerning their long-run spectrum positions. Fees set at market value encourage MNOs to consider their spectrum requirements at the outset and provide incentives to return rights of use to ComReg if not using the radio spectrum or do not require it any longer.
- 11. Equally, a short-term licence fee should not be set so high as to deter efficient use of the licensed spectrum to the point of reducing or precluding efficient uptake.
- 12. ComReg therefore considers that a market-value approach is consistent with avoiding excessively high or excessively low fees.

There are some challenges to setting a market value, but the estimated value of a long-term licence pro-rated and adjusted to reflect the Irish circumstance and the short-term nature of these licences is a good overall measure

13. There is no easy way of estimating the short-term value of this spectrum. In the first place, due to the need for the administrative assignment of the licences in question, there will be no ready-made value determined at auction. Furthermore, the MNOs have not disclosed any internal estimates of their respective values for the spectrum in question. In these circumstances, ComReg must make best use of the information that is reasonably available, taking into account the practical constraints presented as well as the pressing licence expiry dates.
14. In the absence of other alternatives, ComReg's overall approach is that fees for the 3-month period **are pro-rated** from a benchmark estimate of the market value of a 20-year licence.
15. ComReg has used a combinatorial approach of different relevant and material data points adjusted where appropriate for the particular context in Ireland. One such input is the value of spectrum using observed prices in similar concluded auctions but adjusted for factors more attuned to the situation in Ireland such as population and income levels (i.e., purchasing power differences). In this context, we note that this approach has been used, without complaint, in setting minimum prices for ComReg's previous spectrum awards, as well as for the MBSA2 (where minimum prices are deliberately set at a conservative estimate of the likely market value).

Fees are adjusted for the short-term duration of spectrum rights

16. ComReg has also considered whether any further adjustments to the long-term value would be required to account for the short-term duration of these rights of use. It is difficult to assess this impact, if any, as there are arguments that can be made as to why fees should be a higher or lower value beyond the pro-rated adjustment.
17. On the one hand, spectrum value may be reduced because a return on long-run investments associated with rolling out 5G in the 700 MHz band cannot be made. However, the value of the short-term licence may actually be proportionately higher relative to long-term rights because the substantial sunk investment costs (normally paid early in the licence) are delayed. Further, the competition typically arising from that investment is also delayed having the effect of freezing the market to the benefit of incumbent MNOs.

18. Overall, a conservative view is that these effects are netted out and a **pro-rated** estimate of the value of a 20-year licence is a reasonable estimate for the value of a short-term licence.
19. Separately, ComReg has also considered an adjustment to account for the possibility that the stream of benefits associated with a long-term licence might not be constant, and in its consultation (Document 22/72) ComReg proposed a 10% discount in line with an assumed profitability growth of 1% for every year of a licence. Operators disagree with this growth estimate, arguing for significantly more profitability growth later in the licence.
20. However, this view can be rejected given all three MNOs use straight-line amortisation **for spectrum licences in their own company accounts** as published². This means that MNOs' value for their spectrum licences in the first year is the same as for all other years. If MNOs had significantly more profitability growth later in the licence this ought to be reflected through a different amortisation schedule which it is not. Consequently, the approach adopted by the MNOs suggests a more limited discount, if at all.
21. Overall, there remain uncertainties with valuing short-term licences as outlined. Thus, in an effort to ensure fees do not dampen spectrum use, ComReg will assume a **precautionary approach** and retain the 10% discount.

The fees are in general well below previous Irish metrics as well as many of the MNO's own proposals

22. ComReg also considered fees based on existing charges as there is some justification for such an approach having most recently been used in MBSA2 in aligning the expiry dates of existing 2.1 GHz licences. However, there is evidence that the market value for 2.1 GHz rights of use, awarded during the so called "dot-com bubble³", has reduced considerably since the original assignment in 2002 thus impairing the re-use of those fees here.
23. Generally, the incumbent MNOs have suggested inconsistent⁴ approaches where existing fees are acceptable for the 700 MHz Band (where fees of €100 currently apply) but not for the 2.1 GHz Band (where fees of €823,000 per 2 x 5 MHz block would apply for a 3-month period). Most other approaches suggested by MNOs would result in fees set significantly below the market value, however they also include the setting of retrospective fees and also fees

² See Companies Registration Office of Ireland at <https://www.cro.ie/en-ie/>.

³ The "dot-com" bubble—also known as the tech boom or internet bubble—was a period during which internet-related technology companies attracted a massive amount of attention from venture capitalists as well as traditional investors.

⁴ For example, Three submitted to the High Court that fees for temporary licences could be charged using the reserve price, and subsequently stated, in its response to Document 22/63, that it would not be appropriate to include a component of same in the short-term licences.

based on existing charges for interim rights, **which would result in fees greater than those proposed by ComReg.**

The spectrum fees

24. Having considered all of the incumbents' views, ComReg is setting the following fees for a 2 × 5 MHz block of spectrum for a 3-month period: €401,000 for 700 MHz, and €212,000 for 2.1 GHz.
25. ComReg's fees are objectively justified, transparent, non-discriminatory, and proportionate in relation to their intended purpose and will best ensure the optimal use of the spectrum. The fees are unlikely to be excessive or discourage spectrum use as:
 - the 2.1 GHz fees are around **four times below** the current 2.1 GHz fees;
 - the 700 MHz fees are **20% below** the equivalent fees that applied for substitutable interim 900 MHz rights of use in MBSA1, an award that was held a decade ago in 2012;
 - the fees are not significantly different from and in some cases are **below the fees** that would arise from some approaches proposed by the incumbent MNOs;
 - fees for 700 MHz and 2.1 GHz bands are **10% below the minimum price** (updated for inflation) that would be paid on a pro-rata basis under the MBSA2 auction; and
 - fees for 700 MHz and 2.1 GHz rights of use take a **precautionary account** of the short-term duration of the licence.
26. ComReg is also satisfied that the fees are set at an appropriate level to minimise the risk of distortions to competition and contamination of the MBSA2.

Next steps

27. ComReg will now seek the consent of the Minister to the making of regulations as set out in final draft form in Annex 3 below. Considering the imminent expiry of certain existing licences, should existing licensees wish to apply for Short-Term ECS Licences they can do so now using the application form published alongside this Document (Document 22/78b), accompanied by the relevant licence fee. Should the Minister consent to the making of the regulations, ComReg will then proceed to process any applications received.

Chapter 1

1 Introduction and context

1.1 Introduction

- 1.1 This document sets out the Commission for Communications Regulation's ("ComReg") response to consultation and decision to put in place a short-term (up to 6 months) licensing framework for the issue of spectrum rights of use in the 700 MHz and 2.1 GHz bands from 2 October 2022 (the "Short-term Framework").
- 1.2 Alongside this document, ComReg is also publishing:
- Document 22/78a, being a report by DotEcon Ltd. ("DotEcon") setting out its assessment of the responses to Document 22/72 in relation to fees, which has informed ComReg's consideration of a short-term licensing framework ("DotEcon Report"); and
 - Document 22/78b, an Application Form for Short-term ECS Licences in the 700 MHz and 2.1 GHz spectrum bands.
- 1.3 In arriving at its decisions set out in this document, ComReg has had regard to the prevailing circumstances surrounding the 700 MHz and 2.1 GHz bands, as summarised below, and to its statutory powers, functions, objectives, and duties relevant to its management of the radio frequency spectrum, the most relevant of which are summarised in Annex 2. That said, given the prevailing situation that ComReg now faces following the granting of a stay by the High Court (see section 1.2.4 below), it is important to clarify that, other than protecting end users from potential service disruption, ComReg cannot properly accommodate any of its statutory objectives in the present case.
- 1.4 ComReg also has had regard to all other relevant information available to it, which includes amongst other things:
- submissions received in response to Document 22/63⁵, being from Eircom Ltd ("Eir"), Three Ireland Hutchison Ltd ("Three"), and Vodafone Ireland Ltd ("Vodafone"). The non-confidential versions of these submissions are set out in Annex 4 of Document 22/72;

⁵ [ComReg Document 22/63](https://www.comreg.ie/publications/), Information Notice - "*The potential issue of short-term rights in the 2.1 GHz band and possibly in other spectrum bands included in the Multi Band Spectrum Award*", published 22 July 2022. Available at <https://www.comreg.ie/publications/>.

- Document 22/72⁶ - ComReg’s consultation and draft decision document proposing a short term (3 months with the possibility of a further 3 months) ECS licensing framework for the issue of spectrum rights of use in the 700 MHz and 2.1 GHz bands from 2 October 2022 (the “Proposed Framework”);
- Document 22/72a - a report by DotEcon Ltd. (“DotEcon”) setting out its expert advice and recommendations, including fees benchmarking, which informed ComReg’s consideration of the Proposed Framework;
- submissions received in response to Document 22/72, being from the three MNOs (Eir, Three and Vodafone). The non-confidential versions of these submissions are set out in Annex 6 of this Document; and
- Document 22/78a – a report by DotEcon setting out its assessment of the responses to Document 22/72 in relation to fees, which has informed ComReg’s consideration of the Short-term Framework.

1.2 700 MHz and 2.1 GHz bands - the prevailing circumstances

1.2.1 MBSA2 Decision – to assign long-term rights in the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands

1.5 On 18 December 2020, following a lengthy, detailed and comprehensive consultation process, ComReg published its Decision⁷ to hold a multi-band spectrum award in 2021 to assign long-term rights of use across four important spectrum bands, all of which are suitable for wireless broadband services (“MBSA2”). These spectrum bands are the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands which are all harmonised at European level for the provision of wireless broadband (“WBB”) services across Europe.

1.6 The MBSA2 is hugely important for Ireland for several reasons:

- the award comprises 470 MHz of harmonised spectrum which represents a **46% increase in the spectrum assigned** for the provision of WBB services in Ireland. An award of this magnitude will significantly empower operators to provide improved services to meet ever-increasing consumer demand in Ireland;

⁶ [ComReg Document 22/72](#), “The potential issue of short-term spectrum rights of use in the 700 MHz and 2.1 GHz from October 2022 - Proposals to mitigate consumer disruption”, published 23 August 2022, available at www.comreg.ie/publications.

⁷ [ComReg Document 20/122](#), “Multi Band Spectrum Award Response to Consultation and Decision”, published 18 December 2020, available at www.comreg.ie/publications.

- the 700 MHz Band is an important band for the provision of **widespread coverage, including in rural areas and on national transport routes**. This is especially important in Ireland, given its challenging demographic characteristics and the high and exponential costs associated with deploying very high levels of coverage. Indeed, Ireland has one of the most widely distributed and rural populations in Europe;
- the 2.1 GHz, 2.3 GHz and 2.6 GHz bands are ideally suited to providing **network capacity and thereby enhanced performance**, if used for mobile broadband services, although they can also be used for both capacity and coverage purposes (such as for fixed wireless broadband services in rural areas);
- the spectrum bands in the MBSA2, and in particular the 700 MHz Band, are highly suitable for the provision of enhanced **4G and new 5G services**.

1.7 In line with its obligation to promote competition in the electronic communications sector, ComReg decided to award long-term rights of use in these important bands by way of an **open and competitive award process (i.e., auction)** whereby existing operators and potential new entrants could compete for such rights of use.

1.8 In addition, ComReg also decided to:

- set the minimum price for spectrum blocks in the auction at a conservative level of market value based on a benchmarking methodology where a 40/60 split would be used to apportion the minimum price between (a) the reserve prices of the lots, a clearing price below which ComReg would not sell the lot, and (b) the Spectrum Usage Fees (SUFs) for a lot, which is an annual fee updated for inflation to be paid over the duration of the licence. The final upfront Spectrum Access Fee (SAF) to be paid would be determined by the auction itself but would not be lower than the sum of the reserve prices of the package of lots won. ComReg's fee proposals were informed by, among other things, the advice and recommendations of ComReg's auction expert advisers, DotEcon, and several years of consultation on same⁸;
- provide Three with the opportunity to obtain interim licences in the 2.1 GHz Band, by way of direct administrative assignment, so as to co-terminate its 2.1 GHz rights expiring on 24 July 2022 and 1 October 2022, with those of Vodafone which expire on 15 October 2022. This would allow new 2.1 GHz Band rights of use granted pursuant to the MBSA2 to commence at the same time. The fees set by ComReg in respect of those interim rights reflected the

⁸ ComReg recalls that this approach to setting fees in the auction was not challenged.

fees that were currently paid by Three, Vodafone and Eir, but updated to take account of inflation in line with the consumer price index.⁹

1.2.2 COVID-19 Temporary ECS licensing

- 1.9 In light of the exceptional and extraordinary circumstances presented by COVID-19, in April 2020 ComReg granted temporary spectrum licences in the, then unassigned, 700 MHz Duplex to each of the three MNOs (comprising 2 × 10 MHz of spectrum) and for liberalised spectrum in the 2.1 GHz Band. These temporary licences were intended as an exceptional, unprecedented and temporary measure to help the MNOs ameliorate the unexpected and exceptional burden on their networks caused by Government's COVID-19 'stay-at-home' measures. Whilst the temporary licences were intended to be put in place for just a 6-month period, due to the continuation of Government 'stay-at-home' measures, further temporary licencing frameworks (each of 6-months duration) were put in place in the 2½ years since then.¹⁰
- 1.10 In addition, in light of the extraordinary and unprecedented national emergency presented by COVID-19 and in order to put in place a temporary licensing framework as quickly as possible, in April 2020, ComReg imposed a nominal fee of just €100 per licence for each 3-month period. This means that individually the MNOs have each paid a grand total of just €1,000 euros each for access to this highly valuable spectrum over the previous 2½ years. Purely by way of context, the minimum price for the equivalent total of 700 MHz spectrum blocks under the MBSA2 auction over the same 2½ years would have been approximately **€27 million**.¹¹
- 1.11 However, at all times, ComReg made it abundantly clear that the COVID-19 temporary spectrum licences were exceptional, temporary and entirely without prejudice to the award of long-term rights of use under MBSA2.
- 1.12 Due to the lifting of all Government restrictions earlier this year, the current COVID-19 temporary spectrum licences all expire on 1 October 2022 with no further temporary framework.¹² However, the trio of MNOs all claim that the change in consumer demand profile caused by the pandemic will continue to place a burden on their networks beyond 1 October 2022 and, in their view, there will be significant consumer disruption should the MNOs not have access to the 700 MHz and 2.1 GHz spectrum beyond that date. It is for this reason that they are now seeking short-term

⁹ See, in particular, Annex 5 of Document 20/122.

¹⁰ See Chapter 2 of ComReg Document [22/58](#) for an overview of the COVID-19 temporary spectrum licensing frameworks.

¹¹ The price per 2 × 5 MHz 700 MHz block on an annual basis is €1.8 million using MBSA2 minimum prices. The price for all six 2 × 5 MHz 700 MHz blocks over a 2½ year period is c.€27m (i.e. €1.8m x 6 x 2.5).

¹² ComReg Document 22/58, "Information Notice - COVID 19 Temporary Spectrum Licensing - July 2022 update and end of COVID-19 temporary spectrum licensing on 1 October 2022", published 5 July 2022. Available at www.comreg.ie/publications.

licences in these same bands from 2 October 2022. Also, as will be seen below, at least 2 of the MNOs are seeking to argue that they should continue to have the benefit of this valuable spectrum at a nominal fee.

1.2.3 Appeal of the MBSA2 decision

1.13 The MBSA2 auction was due to take place during 2021. However, in January 2021, Three Ireland (Hutchison) Limited and Three Ireland Services (Hutchison) Limited (collectively referred to as “Three”) appealed ComReg’s MBSA2 Decision. ComReg strongly contested Three’s appeal, which was heard by the High Court in mid-2021. The appeal was also before the court in October and November 2021. Judgment was ultimately reserved on 23 November 2021 and is **still awaited**.

1.2.4 Stay on the implementation of the MBSA2 auction

1.14 The existence of the appeal did not operate as a stay on the implementation of ComReg’s MBSA2 decision, and ComReg continued to progress the Award Process, albeit with some alterations to timing. Because some **important existing spectrum licences are due to expire in October 2022**, ComReg took steps to proceed with the MBSA2 auction to enable the assignment of long-term rights of use in advance of expiry.

1.15 However, in July 2022, the High Court granted Three **a stay which now prevents ComReg from proceeding with the MBSA2 auction** until judgment issues on the substantive appeal¹³.

1.16 Directly following the grant of stay, ComReg wrote to bidders in the MBSA2 award informing them that the MBSA2 auction would not commence on 25 July 2022. In addition, ComReg informed them that:

- it is not yet known how long the period of the stay may be, however Mr. Justice McDonald indicated that it would likely be for ‘no more than a few months’; and
- in accordance with paragraph 5.16¹⁴ of the MBSA2 Information Memorandum (IM)¹⁵ the MBSA2 applications submitted continue to remain

¹³ In granting the stay, Mr. Justice McDonald expressed the opinion in his oral judgment of 20 July 2022, that, in his view, the stay is likely to remain in place for no more than ‘a few months’.

¹⁴ Which states, amongst other things, “All Applications (including Applications which do not ultimately become qualifying Applications) by Applicants comprise offers which must remain open and valid for six (6) months from the date of submission”.

¹⁵ [ComReg Document 21/40](#), “Multi Band Spectrum Award –Information Memorandum and Draft Regulations - The 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands”, published 16 April 2020, Available at www.comreg.ie/publications.

contractually binding offers for six months from the date of submission of the Phase 2 Application.

- 1.17 ComReg has appealed the grant of the stay to the Court of Appeal and a hearing date of 19 October 2022 (1 day) is set.

1.2.5 Proposals for an administrative grant of short-term rights in the 700 MHz and 2.1 GHz bands

- 1.18 While ComReg is appealing the MBSA2 stay decision and continues to await the substantive judgment from the High Court, the consequence of the stay is that ComReg is no longer able to progress the assignment of long-term rights of use in these bands for the long-term benefit of consumers, pursuant to its Decision, and in advance of current licence expiry. Instead, ComReg must attempt to address, as best it can, any potential for consumer disruption in the short term, arising from licence expiry through the proposed **administrative grant of short-term licences**, until some certainty from the Courts emerges, while at the same time attempting to safeguard the integrity of the future MBSA2 auction and the award of long-term licences. Consequently, ComReg must also now amend the MBSA2 Regulations¹⁶ and MBSA2 IM as appropriate.

Document 22/63: Information Notice

- 1.19 On 22 July 2022, ComReg published an Information Notice (ComReg Document 22/63¹⁷), requesting views on the potential issue of short-term rights of use in the 2.1 GHz band (and possibly in other spectrum bands encompassed by the MBSA2 award) and information to assist its considerations.

Submissions in response to Document 22/63

- 1.20 On foot of its Information Notice, ComReg received three submissions, one from each of the MNOs (Eir, Three and Vodafone), the incumbent licensees. The non-confidential versions can be found in Annex 4 of Document 22/72.

¹⁶ SI 264 of 2021 (Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) Regulations 2021).

¹⁷ [ComReg Document 22/63](#), "Information Notice – The potential issue of short-term rights in the 2.1 GHz band and possibly in other spectrum bands included in the Multi Band Spectrum Award", published 22 July 2022. Available at www.comreg.ie/publications.

Document 22/72: Consultation and Draft Decision

- 1.21 Having regard to these submissions and other material before it, on 23 August 2022, ComReg published Document 22/72¹⁸, a consultation and draft decision (including draft regulations) on its proposals to implement a short-term licensing framework for 700 MHz and 2.1 GHz spectrum.
- 1.22 Document 22/72 set out that:
- a key principle in designing any proposed short-term framework is that it **should not delay or otherwise disincentivise the commencement of, or participation, in the MBSA2 award** and that it is without prejudice to the award of long-term spectrum rights of use in these bands; and
 - such **short-term rights of use are an exception to the general rule under the EU common regulatory framework** that new rights in these bands should be assigned on a long-term basis and via an open and competitive / comparative selection process¹⁹. Accordingly, ComReg noted that it is required to ensure that any short-term rights are granted for the minimum duration necessary, and otherwise in accordance with the common regulatory framework, including as to fees.
- 1.23 The key proposals set out in Document 22/72 include that:
- in order to avoid likely consumer disruption, spectrum rights in the 700 MHz and 2.1 GHz bands would be made available to the existing licensees in these bands whose licences expire on 1 October and 15 October 2022 depending on the licence;
 - spectrum rights in the 2.3 GHz and 2.6 GHz bands would not be made available at this time because neither band is assigned and consequently the matter of consumer disruption does not arise;
 - a quantum of spectrum rights of use in the 700 MHz and 2.1 GHz bands equivalent to that currently held would be made available on a national basis to each of the existing licensees, Eir, Three and Vodafone;

¹⁸ [ComReg Document 22/72](#), “*The potential issue of short-term spectrum rights of use in the 700 MHz and 2.1 GHz bands from October 2022 - Proposals to mitigate consumer disruption*”, published 23 August 2022, available at www.comreg.ie/publications.

¹⁹ Specifically, it is also important to note that for spectrum bands harmonised for WBB (such as those included in the MBSA2) the EU common regulatory framework obliges that such spectrum rights are assigned for a period of 20 years, and that derogations from this approach may only occur where duly justified and for specific cases.

- the assignment process for such rights would be based on the submission of a completed application, as well as payment of the relevant fees;
- the duration of the licensing framework would be for up to three months, in keeping with the judgment of Mr. Justice McDonald in granting a stay on the implementation of the MBSA2 auction. The regulations would, however, provide for the possibility of up to a further 3-month period, although the expectation, based on the judgment, is that this will not be required; and
- the fees would be set at an approximation of market value for the band as follows:
 - 700 MHz: €401,000 per 2 × 5 MHz block per 3-month period; and
 - 2.1 GHz: €212,000 per 2 × 5 MHz block per 3-month period.

1.24 Whilst ComReg recognised the potential for significant consumer disruption which could arise if the MNOs were not able to continue using 700 MHz and 2.1 GHz spectrum, ComReg considered the current situation to be far from ideal because:

- according to Cullen International²⁰, **Ireland is one of only a small number of European countries** that has yet to issue long term rights of use for some or all of the key 5G 700 MHz Band^{21 22};
- it is **not good for competition**: at best it sits uneasily with ComReg's statutory obligations and objectives relating to the promotion of competition. With the aim of avoiding consumer disruption, it might be said that it has the incidental benefit of maintaining existing levels of competition. However, unlike MBSA2, it cannot be said that such a measure promotes competition;
- **it freezes the market to the benefit of incumbent MNOs which raises a potential inconsistency with EU law**: in principle, measures which have the effect of freezing the structures of the national market and protecting the position of operators already active on that market are incompatible with the EU common regulatory framework;

²⁰ Cullen International is an independent regulatory intelligence provider. See <https://www.culleninternational.com/>

²¹ Bulgaria, Estonia, Poland, Romania, Serbia and Turkey aside from Ireland. See [Spectrum Database \(cullen-international.com\)](https://www.cullen-international.com/).

²² In the European Commission's Digital Economy and Society Index 2021 Digital infrastructure report, Ireland's '5G readiness score' for assigning spectrum in the 5G pioneer bands (i.e. 700 MHz, 3.6 GHz and 26 GHz) is just 30%. This score is based solely on Ireland's assignment of spectrum in the 3.6 GHz band and suggests that the current temporary assignment of spectrum in the 700 MHz band does not meet the requirements of EU Decision 2017/899.

- **it creates continuing incentives for incumbent MNOs to seek to delay MBSA2:** this would be a rational response from the MNOs because it allows them to postpone costly investment decisions while at the same time making significant economic gains without having to compete for this valuable spectrum in an auction or being subject to the risk of new entry;
- **it is not good for consumers:** whilst it would avoid potential consumer disruption in the short term, there is little doubt that the administrative grant of short-term rights of use to the trio of incumbent MNOs is not ultimately good for consumers in terms of price, choice and quality, when compared to the assignment of long-term rights of use via the MBSA2;
- **it does not promote investment in new and enhanced infrastructure and will delay the widespread deployment of 5G:** The short-term nature of these rights of use will inevitably delay some important investment decisions, in particular with regard to the widespread rollout of 5G services, a rollout which is advancing in many other Member States and the UK where the 700 MHz band has been assigned;
- a delay to MBSA2 leads to an overall cost to the economy in the order of magnitude of **€1 billion per annum. Therefore, even a 3-month delay** (i.e., the same duration envisaged for short-term licences) **could cost the Irish economy in the region of €250m.**²³

Submissions to Document 22/72

1.25 ComReg received three submissions to Document 22/72, one from each of the MNOs (Eir, Three and Vodafone), the incumbent licensees in the 700 MHz and 2.1 GHz bands. The non-confidential versions of these submissions are set out in Annex 6: of this Document.

1.3 Amendment of the MBSA2 Regulations

1.26 In Document 22/72, ComReg observed that given the prevailing circumstances, an amendment is required to the MBSA2 Regulations to provide sufficient flexibility for the commencement of spectrum rights of use in Time Slice 1 to be on a date other than 16 October 2022. ComReg made a proposal to that effect in paragraph 2.18 of Document 22/72 and set out draft licensing regulations in Annex 3 of Document

²³ In opposing the Stay Application, ComReg, with the assistance of its external economic advisor Dr Maldoom emphasised the importance of proceeding with the Auction and awarding long term licences. Dr Maldoom and a report prepared by an independent expert, Professor Peter Clinch, Jean Monnet Full Professor and Chair of Public Policy at University College Dublin, put the overall cost to the economy of a delay in the award of these long-term licences in the order of magnitude of €1 billion per annum.

22/72.

- 1.27 No submissions were received on this proposal. ComReg will, subject to the consent of the Minister, amend the MBSA2 regulations as detailed in paragraph 2.18 of Document 22/72 and as set out in the final draft licensing regulations in Annex 3 of this document.
- 1.28 ComReg will also make a corresponding update to the relevant text in the MBSA2 Information Memorandum and communicate this directly to bidders in the award process in due course

1.4 Structure of document

- 1.29 This document is structured as follows:
- **Chapter 2:** sets out some background information relevant to this consultation process including information on (i) the 700 MHz and 2.1 GHz bands, being the spectrum bands with existing spectrum rights of use expiring in October 2022, and (ii) mobile voice and data traffic information over the last five years;
 - **Chapter 3:** sets out ComReg's assessment and final position on the establishment of a Short-term Framework, its duration, and other authorisation aspects and licensing conditions (with the exception of fees);
 - **Chapter 4:** sets out ComReg's assessment of and final position on spectrum fees for a Short-term ECS Licence;
 - **Chapter 5:** sets out ComReg's substantive Decision regarding the Short-Term Framework;
 - **Chapter 6:** outlines the next steps;
 - **Annex 1:** includes 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:** contains two sets of final draft regulations.
 - the final draft Regulations to facilitate the Short-Term Framework for the assignment of spectrum rights of use in the 700 MHz and 2.1 GHz bands; and

- final draft regulations amending the MBSA2 Regulations in order to give ComReg discretion with regard to the commencement date of rights of use in Time Slice 1;
- **Annex 4:** sets out ComReg's final 'short term assignment' Regulatory Impact Assessment (RIA);
- **Annex 5:** addresses other matters raised in response to Document 22/72; and
- **Annex 6:** sets out the non-confidential submissions received in response to Document 22/72.

Chapter 2

2 Background Information

2.1 In this Chapter, ComReg sets out some background information relevant to this document, including information on:

- the 700 MHz and 2.1 GHz bands, i.e., those MBSA2 bands with existing rights of use expiring in October 2022; and
- mobile voice and data traffic information for the last 5 years.

2.1 The 700 MHz and 2.1 GHz bands

2.2 There are four spectrum bands encompassed by the MBSA2, being the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands. This section sets out information on the 700 MHz and 2.1 GHz bands, i.e., those MBSA2 bands with existing rights of use expiring in October 2022.

2.3 In relation to the 2.3 GHz and 2.6 GHz bands, and as noted in Section 2.1.3 of Document 22/72, there are currently no licences issued for the provision of WBB services in these bands, and no WBB services provided to end users using these bands. Accordingly, no issue of consumer disruption arises from expiring licences.

2.1.1 The 700 MHz Band

2.4 The 700 MHz Band has been identified as one of the pioneer²⁴ spectrum bands for 5G in Europe alongside the 3.6 GHz and 26 GHz bands²⁵. The 700 MHz Band is the only 5G pioneer spectrum band suitable for the provision of widespread coverage, including in rural areas and on national transport routes.

2.5 This is especially important in Ireland, given its challenging demographic characteristics and the high costs associated with deploying very high levels of coverage²⁶ which rise exponentially as the coverage increases. The long-term assignment of spectrum rights of use in the 700 MHz Band is critical to meeting this

²⁴ In the context of 5G, the pioneer bands refer to 'new' spectrum bands for WBB services. 5G can also be deployed in 'existing' spectrum bands for WBB services (e.g. 800 MHz, 900 MHz, 1800 MHz band, etc.). However, in these 'existing' spectrum bands a transitioning process will first be required before deploying 5G, given the use of bands for other WBB technologies (i.e. 2G, 3G, 4G).

²⁵ See for example: RSPG16-032 Final "Strategic Roadmap towards 5G for Europe - Opinion on spectrum related aspects for next-generation wireless systems (5G)", 9 November 2016, the EC Radio Spectrum Policy Group (RSPG).

²⁶ See [Document 18/103](#), "Improving connectivity in Ireland - Challenges, solutions and actions", published 30 November 2013, available at www.comreg.ie/publications.

significant coverage challenge for Ireland.

Status of 700 MHz spectrum awards in Europe

- 2.6 Decision (EU) 2017/899²⁷ of the European Parliament and the Council (Tracker) sets the timeline for awarding the band obliging member states where EU Member States are obliged to allow the use of the band for wireless broadband by 30 June 2020, although this deadline may be delayed for up to two years, based on reasons listed in the annex to Decision (EU) 2017/899.
- 2.7 Using information available to ComReg from Cullen-International's spectrum database²⁸, and as shown in Figure 1 below, the majority of European countries (26 countries) have awarded long-term rights for some or all of this key 5G Spectrum band, and Ireland is one of only a small number of European countries (7 in total)²⁹ that has yet to award such long-term 700 MHz rights of use³⁰.
- 2.8 In relation to countries yet to award long-term 700 MHz rights of use, Ireland notably stands out as being the only western European country, noting that the other 6 countries, in the main, border Russia where spectrum negotiation and co-ordination difficulties are particularly challenging and have hampered the use of the 700 MHz Band in these states³¹.

²⁷ [EUR-Lex](https://eur-lex.europa.eu/), "Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union", published 25 May 2022, available at <https://eur-lex.europa.eu/>.

²⁸ See [Spectrum Database \(cullen-international.com\)](https://www.cullen-international.com/).

²⁹ Bulgaria, Estonia, Poland, Romania, Serbia and Turkey aside from Ireland. Note that Romania has initiated a spectrum award that includes 700 MHz. It is intended to be completed by the end of 2022.

³⁰ In the European Commission's Digital Economy and Society Index 2021 Digital infrastructure report, Ireland's '5G readiness score' for assigning spectrum in the 5G pioneer bands (i.e. 700 MHz, 3.6 GHz and 26 GHz) is 30%. This score is based solely on Ireland's assignment of spectrum in the 3.6 GHz band and suggests that the current COVID-19 temporary assignment of spectrum in the 700 MHz band does not meet the requirements of EU Decision 2017/899.

³¹ See for example the news articles from Policy Tracker (www.policytracker.com - a subscription-based website on spectrum news):

- "[Lithuania completes 700 MHz auction despite Russia fears](#)", - "The Lithuanian regulator awards licences for 700 MHz spectrum blocks despite the lack of progress in its negotiations with Russia.", Published 12 September 2022; and
- "[Russia extends 700 MHz use for analogue TV as neighbours eye band for 5G](#) - Despite repeated spectrum harmonisation requests from its western neighbours, Russia has decided to extend the use of the 700 MHz band for analogue TV broadcasting for another year.", published 27 June 2022.

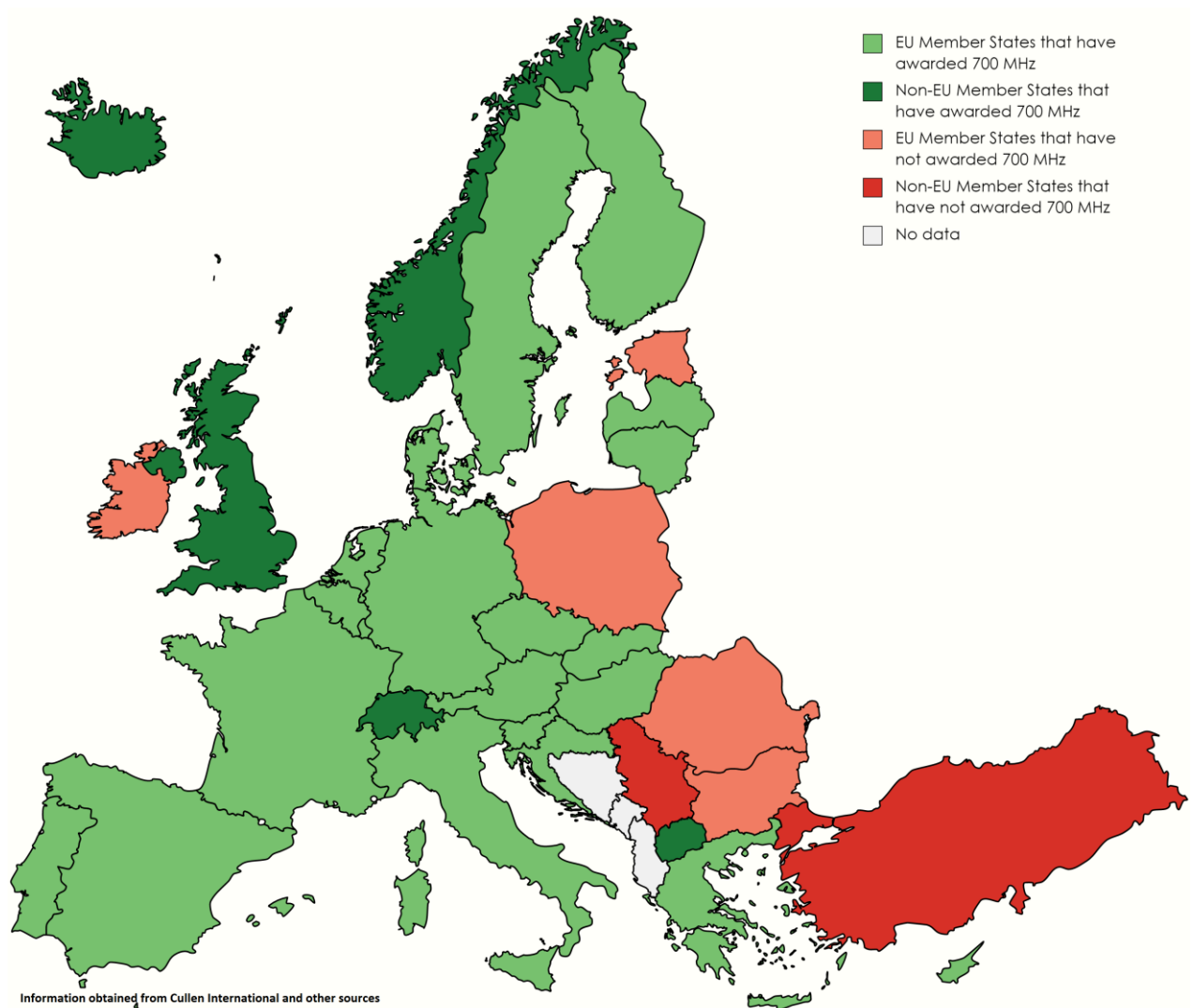


Figure 1. Status of European countries that have awarded long-term licences in the 700 MHz Band

2.9 The delay in the assignment of long-term 700 MHz rights of use is in turn likely to delay the rollout of widespread 5G services in Ireland compared to the rest of Europe, resulting in a delayed adaptation and uptake of digital technologies in areas such as healthcare, automotive, agriculture, transport and utilities, to name but a few. This delay is at a very significant overall cost to the Irish economy.

Ireland’s COVID-19 temporary spectrum 700 MHz rights

2.10 Since April 2022 in light of the exceptional and extraordinary circumstances presented by COVID-19, ComReg has issued COVID-19 temporary spectrum licences to each of the MNOs for 2 x 10 MHz of spectrum rights in the 700 MHz spectrum.

2.11 To varying degrees, these spectrum rights have been used by each of the MNOs to

provide additional network coverage and capacity for the provision of 4G voice and data services to meet the increased and changed network traffic that arose due to the exceptional and extraordinary circumstances presented by COVID-19.

2.12 Figure 2 sets out the current spectrum assignments and licensees in the 700 MHz band.

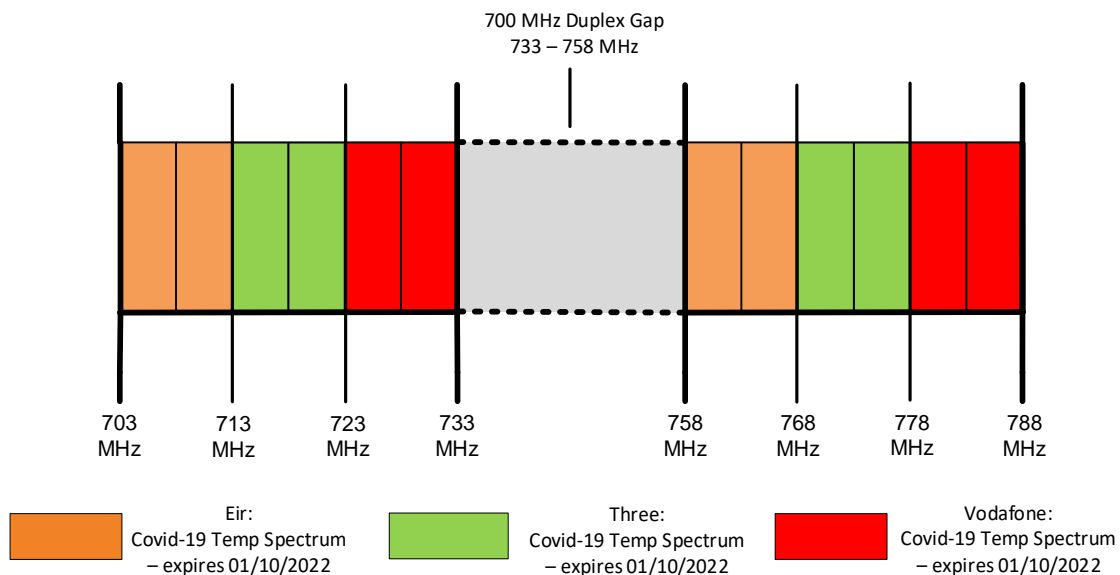


Figure 2. The current spectrum assignments and licensees in the 700 MHz band

2.13 The current COVID-19 temporary spectrum licences expire on 1 October 2022.

2.14 As outlined in ComReg Document 22/58³², ComReg took the view that there is no basis for considering any further COVID-19 temporary spectrum licensing framework beyond 1 October 2022 noting, among other things, that the COVID-19 temporary spectrum licensing frameworks have only ever been justified on the basis of Government COVID-19 measures. ComReg notes that, since March 2022, there are no Government COVID-19 restrictions in Ireland, and there are no indications that this is likely to change.

2.1.2 The 2.1 GHz Band

2.15 Most European countries awarded the 2.1 GHz Band in the years 2000 or 2001 for UMTS, the third generation of mobile services (“3G”).

2.16 In Ireland, in 2002 and 2007, ComReg issued spectrum rights in the 2.1 GHz Band

³² [ComReg Document 22/58](https://www.comreg.ie/publications), “COVID 19 Temporary Spectrum Licensing - July 2022 update and end of COVID-19 temporary spectrum licensing on 1 October 2022”, published 5 July 2022, available at www.comreg.ie/publications.

to each of the MNOs³³. These licences were issued for twenty years, after which the spectrum rights of use associated with these licences expire.

2.17 Since being made available, the 2.1 GHz Band has been central to the provision of mobile services in Ireland, initially being used to provide both network capacity and coverage for 3G services and, more recently, for the provision of 4G and some 5G services which was made possible through the issue of liberalised spectrum rights of use to:

- Three and Vodafone under the Wireless Telegraphy (Third Generation and GSM Licence (Amendment) and Interim Licensing) Regulations 2021 (S.I. 265 of 2021); and
- Eir under the Wireless Telegraphy (Further Temporary Electronic Communications Services Licences) (No.4) Regulations 2021 (S.I. No. 138 of 2022).

2.18 Figure 3 below sets out the current spectrum assignments and licensees in the 2.1 GHz band.

³³ Three's 2.1 Band spectrum rights of use include rights that it was assigned in 2002 and also rights that it acquired from Telefonica Ireland Ltd t/a O2 in a merger in 2014 and which were also originally granted in 2002.

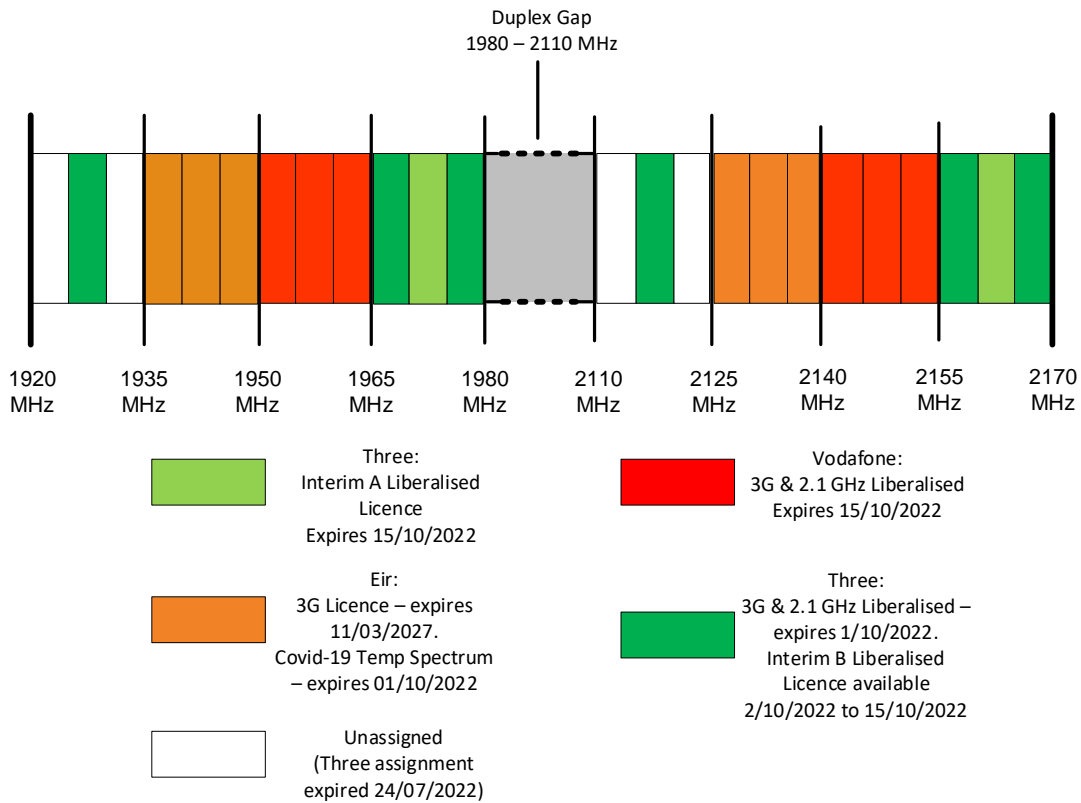


Figure 3. The current spectrum assignments and licensees in the 2.1 GHz band

2.19 In October 2022, certain spectrum rights of use in the 2.1 GHz band will expire for each of the MNOs (Eir, Three and Vodafone) as outlined below:

- For Eir, while its existing 3G Licence for 2 × 15 MHz of spectrum rights will not expire until 11 March 2027, its COVID-19 temporary spectrum licence which liberalises these spectrum rights will expire on 1 October 2022;
- For Three, its existing spectrum rights of 2 × 20 MHz will expire on 15 October 2022³⁴; and
- For Vodafone, its existing spectrum rights of 2 × 15 MHz will expire on 15 October 2022.

2.1.3 Sites deployed in the 700 MHz and 2.1 GHz bands

2.20 Based on the information provided by the MNOs to Document 22/63, and as set out in Table 1 below, ComReg observes that in total the MNOs have deployed a similar

³⁴ This assumes that Three completes the remaining application process steps and is granted an Interim B 2.1 GHz Band Liberalised Use Licence for its existing assignment of 2 × 15 MHz for the period 2 October 2022 to 15 October 2022.

number of sites in both the 700 MHz and 2.1 GHz bands, averaging at 1192 sites deployed per MNO in the 700 MHz band and 1242 sites deployed per MNOs in the 2.1 GHz band.

Table 1: Number of sites deployed per MNO in the 700 MHz and 2.1 GHz bands.

	700 MHz Band Site Deployments	2.1 GHz Band Site Deployments
Eir	[X █████ X]	[X █████ X]
Three	[X █████ X]	[X █████ X]
Vodafone	[X █████ X]	[X █████ X]
Total	3575	3726
Average per MNO	1192	1242

2.21 From this information, ComReg observes that:

- while the total number of sites in the 2.1 GHz Band remains considerable, it has reduced over the last number of years, noting for example, that in 2020 there were 4598 sites deployed in the 2.1 GHz Band³⁵, or an average of 1533 sites per MNO;
- the number of sites deployed in the 700 MHz Band is substantial, particularly when compared to the number of sites deployed in the 800 MHz band (which is the other sub-1 GHz spectrum band currently used for LTE services), noting for example, that in 2020, there were 4480 sites deployed in the 800 MHz band³⁶, or an average of 1493 sites per MNO; and
- the rate of deployment of sites in the 700 MHz Band is prodigious to say the least given that the spectrum was only first made available in April 2020. It is well in excess of the rate of deployment for the 800 MHz band (over 75% more), as illustrated in Figure 4 below, and after 2½ years the average number of sites deployed in the 700 MHz band is now at a level similar to

³⁵ See Table 7, p193 of Document [20/122](#), which indicates that in the 2.1 GHz band, Eir had deployed 1414 sites, Three 1743 sites and Vodafone 1411 sites.

³⁶ See Table 7, p193 of Document [20/122](#), which indicates that in the 800 band, Eir had deployed 1060 sites, Three 1865 sites and Vodafone 1555 sites.

that rolled out by MNOs over 5 years, twice the time, in the comparable 800 MHz band.

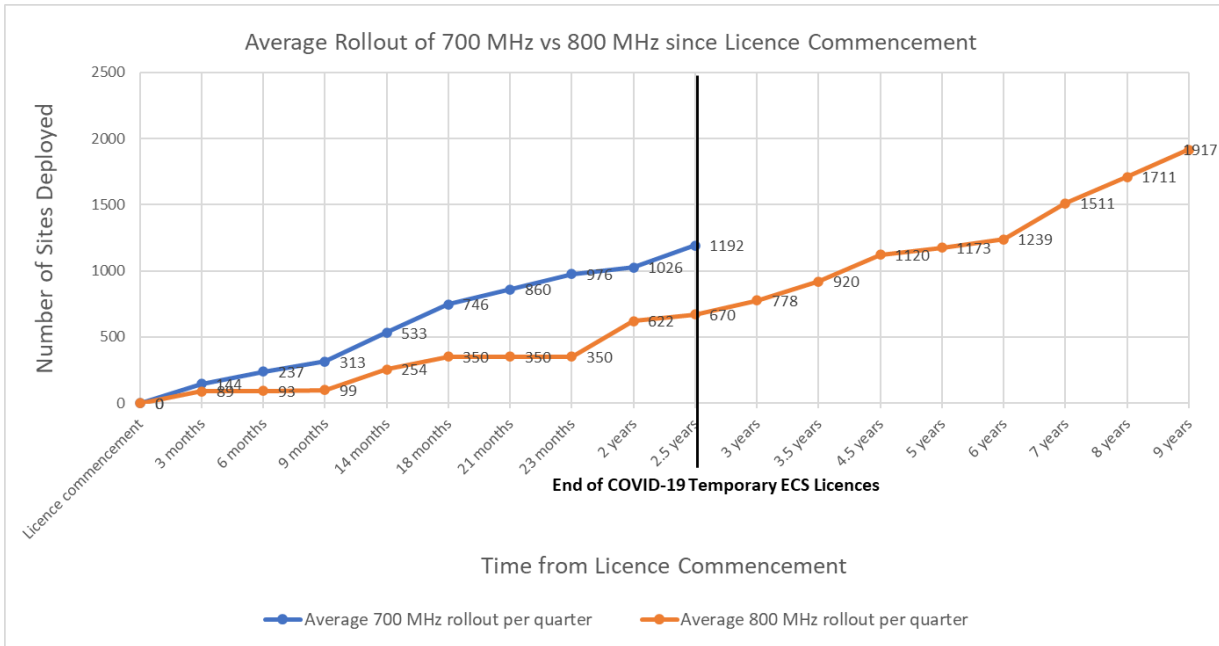


Figure 4. Rate of deployment of sites in the 700 MHz and 800 MHz bands³⁷

2.1.4 Level of voice and data traffic carried in the 700 MHz and 2.1 GHz bands

2.22 Based on the information provided by the MNOs to Document 22/63, and as set out in Table 2 below, ComReg observes that:

- the use of the 700 MHz and 2.1 GHz bands varies per MNO and represents a notable percentage of the total voice and data traffic for each MNO;
- the 700 MHz Band carries a high proportion of network traffic in both rural and suburban areas; and
- the 2.1 GHz Band carries a greater proportion of the network traffic in urban areas.

³⁷ This is based on site information provided by the MNOs to ComReg for the licences issued with spectrum rights in the 700 MHz and 800 MHz bands.

Table 2: Level of data and voice traffic per MNO in the 700 MHz and 2.1 GHz bands

Operator	700 MHz Band		2.1 GHz Band	
	Data	Voice	Data	Voice
Eir	[X [redacted] X] of total data traffic [X [redacted] X] of data traffic in rural areas	[X [redacted] X]	[X [redacted] X] of data traffic with this increasing to [X [redacted] X] in urban areas	[X [redacted] X] of voice traffic with this increasing to [X [redacted] X] in urban areas
Three	[X [redacted] X] of all 4G traffic	No data provided	Over [X [redacted] X] of 4G traffic	No specific figure provided, but [X [redacted] X] [redacted] [redacted] [redacted] [redacted] X]
Vodafone	[X [redacted] X] of total data traffic [X [redacted] X] of data traffic in rural areas	[X [redacted] X] of total VoLTE traffic [X [redacted] X] of VoLTE traffic in rural areas	[X [redacted] X] of total data traffic	[X [redacted] X] of VoLTE traffic

2.2 Mobile voice and data traffic information for last 5 years

2.23 Based on the data sets³⁸ informing ComReg’s Quarterly Key Data Reports, including its most recent report for Q2 2022³⁹, this section presents information on the mobile voice and data traffic carried over the last 5 years and allows for comparison before and after the introduction on COVID-19 measures at the end of Q1 2020.

2.24 Figure 5 below provides information on total mobile data traffic in Ireland for each

³⁸ See [ComReg Data Portal](http://www.comreg.ie), “Tubular Information”, available at www.comreg.ie.

³⁹ ComReg [Document 22/76](http://www.comreg.ie), “Quarterly Key Data Report – Q2 2022”, published 8 September 2022, available at www.comreg.ie/.

quarter in terms of volume (million GBs) and its annual rate of growth. In summary:

- prior to the introduction of COVID-19 measures, mobile data volumes were already significantly increasing and annual growth levels had stabilised at circa 30-35% for the last three quarters of 2019;
- with the introduction of COVID-19 measures the annual mobile data growth levels increased to a peak of 46% in Q1 2020 and remained above the 30-35% growth levels for the following four quarters to Q2 2021; and
- since Q2 2021, the annual mobile data growth rate has fluctuated around the 30-35% levels pre COVID-19, indicating that while MNO data traffic volumes have continued to grow, the recent annual percentage growth increases reflect normal expected volume increases.

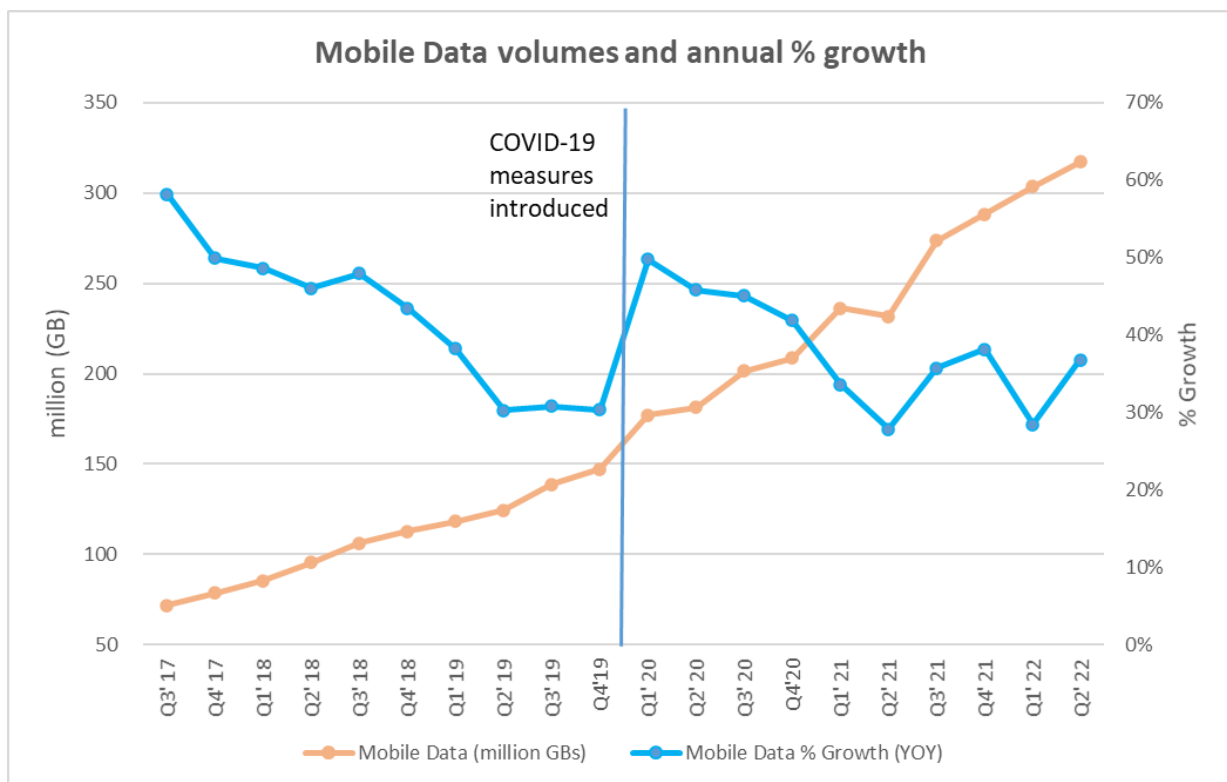


Figure 5. Mobile data volumes and annual percentage growth

2.25 Figure 6 below provides information on the total mobile voice traffic in Ireland for each quarter in terms of volume (Billion minutes) and annual rate of growth. In summary this shows that:

- prior to the introduction of COVID-19 measures mobile voice minutes fluctuated around 3.1 - 3.2 billion minutes with an annual % growth rate around 0%;

- with the introduction of COVID-19 measures, mobile voice volumes increased to a peak of 3.7 billion minutes in Q2 2020 and an annual mobile voice growth rate of 20%; and
- since that peak in Q2 2020, the mobile voice volumes and the rate of growth have declined, although mobile voice volumes have remained somewhat above the pre-COVID levels of circa 3.1 - 3.2 billion minutes.

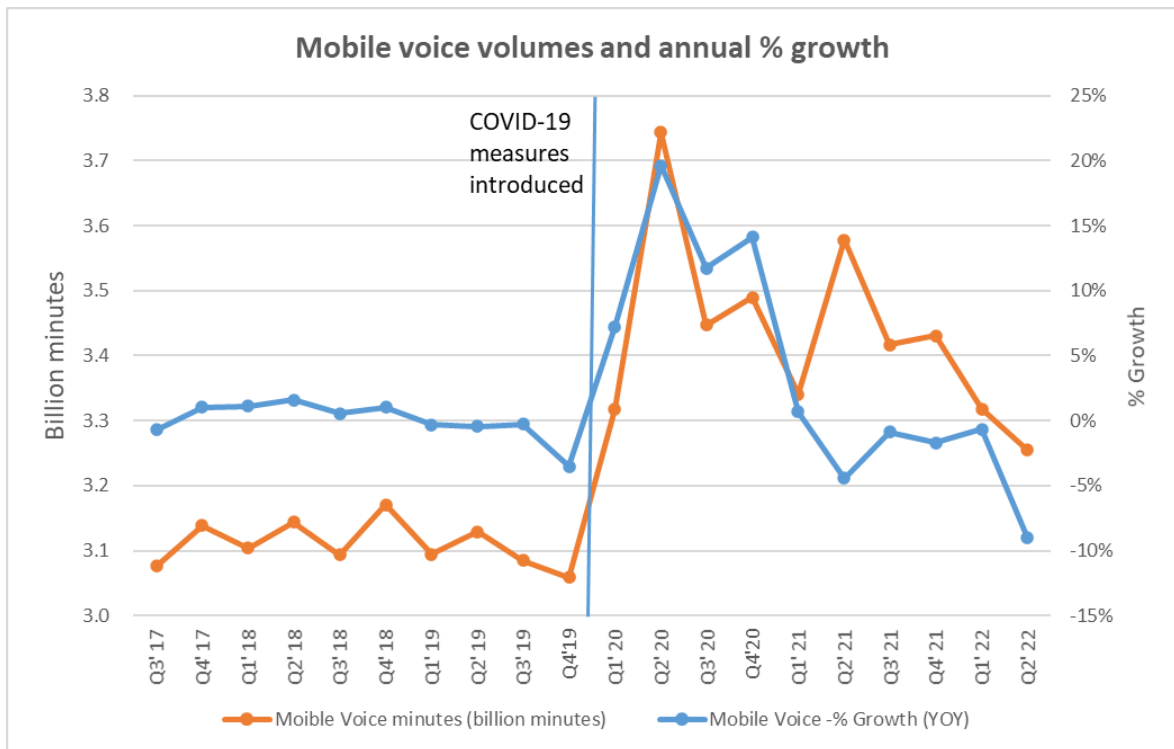


Figure 6. Mobile voice minutes and annual percentage growth

Chapter 3

3 Short-Term ECS Licensing Framework

3.1 Introduction

3.1 This chapter sets out ComReg's assessment and final position on a licensing framework for the issue of short-term rights of use in the 700 MHz and 2.1 GHz Bands from 2 October 2022, as well as the licensing aspects of same, with the exception of spectrum fees which is considered separately in the Chapter 4.

3.2 This chapter is structured as follows:

- Section 3.2 summarises ComReg's proposals on the licensing aspects of a short-term licensing framework (with the exception of spectrum fees) as set out in Consultation Document 22/72;
- Section 3.3 summarises the submissions from interested parties in response to Document 22/72;
- Section 3.4 sets out ComReg's final position on a short-term licensing framework; and
- Section 3.5 provides a summary of the licensing aspects of the short-term licensing framework, with the exception of spectrum fees.

3.2 Summary of ComReg's proposals in Document 22/72

3.3 In Chapters 3, 4 and 5 of Document 22/72, ComReg set out its proposals for a short-term licensing framework:

- (i) In Chapters 3 and 4 of Document 22/72, ComReg set out its preliminary assessment and proposals on whether it would be appropriate to seek to put in place a short-term licensing framework and also considered the different aspects of same including:
 - (a) duration;
 - (b) geographic scope;
 - (c) which technologies/services are permitted;
 - (d) who to assign spectrum to;
 - (e) the quantum of spectrum to be assigned; and
 - (f) the positions of the assignment.

- (ii) In Chapter 4, ComReg also carried out a regulatory impact assessment on whether to put in place a short-term licensing framework; and
- (iii) In Chapter 5, ComReg's set out its proposals in relation to fees and licence conditions. While licence conditions are considered in this chapter, ComReg's fee proposals are addressed at Chapter 4 below.

3.2.2 Chapter 3 of Document 22/72

3.4 Section 3.1 of Document 22/72 outlined the information ComReg had requested from interested parties (in Document 22/63) that might support any short-term licensing framework.

3.5 Section 3.2 set out a summary of interested parties' submissions to Document 22/63, noting that it was only the three MNOs, the incumbent licensees (Eir, Three and Vodafone) who provided submissions. The MNOs submissions set out in this section included information on their:

- claimed reliance on both the 700 MHz and 2.1 GHz bands to provide services in both rural and urban areas;
- assertions that there would likely be significant consumer disruption if rights of use expired in both the 700 MHz and 2.1 GHz bands and were not replaced with new short-term rights of use;
- views on the appropriate duration of any licensing scheme; and,
- opinions on the geographic scope of any such licenses.

3.6 In Section 3.3 of Document 22/72, ComReg set out its preliminary assessment on whether it would be appropriate to put in place a short-term licensing framework. ComReg noted amongst other things:

- that any licensing framework **should not delay MBSA2 and that it would be without prejudice to the award of long-term rights of use in these bands**. Any licences issued on foot of a short-term licensing framework would be subject to this principle;
- the MNOs claims that consumers would experience significant disruption of mobile services if their existing spectrum rights of use in the 700 MHz and 2.1 GHz Bands expire in October without being replaced with new short-term rights of use;
- that there are no services in the 2.3 GHz and 2.6 GHz Bands and therefore no consumer disruption issues could arise;

- that the MNOs claimed to have a high reliance on both the 700 MHz and 2.1 GHz bands, with the MNOs declaring a particularly high reliance on the 700 MHz band to provide service in rural areas and the 2.1 GHz Band to provide service in urban areas;
- that in establishing any short-term licensing framework the key principle of the framework would be to mitigate potential consumer disruption which could otherwise arise due to the expiry of licences in the 700 MHz Band and 2.1 GHz Band in October;
- that an appropriate duration of any short-term licensing framework would be 3 months with the possibility of a short renewal of up to a further 3 months considering:
 - that the duration of any short-term rights of use should be for the minimum necessary to mitigate the claimed consumer disruption that could arise following expiry of licences in October 2022; and
 - the possibility that a judgment may be delivered in the MBSA2 Appeal, noting that in his stay judgment, delivered on 20 July 2022, Mr. Justice McDonald states that:

*“In the first place, any stay granted by me is likely to be of a relatively short duration. It is likely to be in place for **no more than a few months.**”* (emphasis added)⁴⁰
- that any short-term licensing framework could be shortened if the circumstances surrounding the MBSA2 project changed;
- that the geographic scope of the licences would be on a national basis as the potential for consumer disruption is in both rural and urban areas; and
- that the changes in traffic patterns experienced during the COVID-19 pandemic seem likely to prove a permanent feature of how voice and data will be consumed, and that the optimal solution for MNOs to meet the long-term needs of consumers would be through the issue of long-term assignment of rights of use.

3.2.3 Chapter 4 in Document 22/72

- 3.7 In light of the above points identified in Chapter 3 of Document 22/72, in Chapter 4 ComReg considered a number of assignment questions and set out draft Regulatory Impact Assessment (RIA) on whether or not to put in place a short-term licensing

⁴⁰ Extract from court transcript, 20 July 2022.

framework.

Assignment Questions

- 3.8 Before carrying out its draft RIA, ComReg first considered the appropriate parameters of a short-term licensing framework in the present case.
- 3.9 In considering **which technologies** would be permitted, ComReg was of the preliminary view that any short-term rights of use should be made available using the same technical conditions as provided for in the current licences. Therefore all licences would be made available on a service and technology-neutral or “liberalised” basis permitting any technology (e.g. 3G, 4G, 5G) or service (e.g. mobile, fixed).
- 3.10 With regards to **which providers** to offer licences, ComReg was of the preliminary view that short-term licences be made available only to the existing licensees whose rights of use in the 700 MHz and 2.1 GHz Bands are expiring ('Incumbent Licensees')⁴¹ as they would likely be the providers best placed to mitigate the consumer disruption that could occur following the expiry of licences in October 2022. However, ComReg remained open to receiving views from other interested parties, along with appropriate justification, on whether alternative providers could appropriately mitigate the consumer disruption
- 3.11 With regards to the **quantum of spectrum**, ComReg was of the preliminary view that any short term-framework should only consider assigning an amount of spectrum which is no greater than the existing rights held by each Incumbent Licensee. This would provide Incumbent Licensees with the option to maintain holdings of spectrum in current use for the purposes of service continuity and, in turn, avoid consumer disruption. ComReg also noted that there is no justification to award additional spectrum to Incumbent Licensees⁴².
- 3.12 Regarding what **frequency position**, ComReg was of the preliminary view that Incumbent Licensees should be assigned spectrum rights of use within the same frequency positions as in their existing rights of use. ComReg noted that there is no obvious rationale for amending the current frequency assignments in the present case. In contrast, awarding rights of use to operators in alternative frequency positions would likely require transition activities, in turn resulting in unnecessary consumer disruption.
- 3.13 ComReg set out that in this case of an award of short-term rights of use to mitigate

⁴¹ In this instance, the Incumbent Licensees are the three MNOs, Eir, Three and Vodafone.

⁴² This currently is 2 × 10 MHz of unassigned spectrum in the 2.1 GHz Band, which was previously licensed to Three up to 24 July 2022. In its 2.1 GHz Band 'A' licence Three previously held three 2 × 5 MHz blocks of spectrum up to the 24 July 2022 but applied for just one 2 × 5 MHz block for its Interim 2.1 GHz Band A licence from 25 July 2022 to 15 October 2022. Other spectrum may become unassigned in October 2022 should an Incumbent Licensee not apply for all of the rights of use available to it.

consumer disruption, that **an administrative award of rights of use** is the most appropriate mechanism to use as opposed to a competitive (e.g. auction) process. As noted by DotEcon, a short-term assignment very clearly leads to an administrative award of licences, rather than a competitive process. Indeed, if short-term licences are granted just to the Incumbent Licensees, the three MNOs, and only in relation to their existing spectrum holdings, there can be no scope for a conflict in demand for any of the available licences, and therefore a process to resolve any conflict is superfluous.

3.14 ComReg also set out its proposals that the short-term licensing framework would permit **Eir to obtain a short-term liberalised use licence in the 2.1 GHz Band** for the same spectrum that it currently holds at no extra cost (see Chapter 4 for ComReg's views on fees).

Draft 'short-term assignment' RIA

3.15 In Chapter 4 of Document 22/72, ComReg also set out its regulatory options for its draft 'short-term assignment' RIA being:

- **Option 1** is the 'do nothing' option and involves ComReg taking no regulatory action and allowing existing 700 MHz and 2.1 GHz rights of use to expire in October 2022.
- **Option 2** is to make available spectrum rights of use as follows:
 - short-term liberalised rights of use in the 700 MHz and 2.1 GHz Bands would be made available to each MNO (i.e. the Incumbent Licensees);
 - the short-term liberalised rights of use made available to each MNO would be no greater than the existing spectrum holdings held by each MNO in the 700 MHz and 2.1 GHz Bands; and
 - short-term liberalised rights of use made available to each MNO would be located within the same frequency position as currently assigned in the 700 MHz and 2.1 GHz Bands.

3.16 ComReg also considered that, in the case of Eir, short-term "liberalised" rights of use are made available to it in the 2.1 GHz Band.

3.17 ComReg then set out its draft 'short-term assignment' RIA assessing the impact of the regulatory options on industry stakeholders, competition, and consumers.

3.18 For the reasons outlined in the draft 'short-term assignment' RIA, ComReg formed the preliminary view that the preferred option identified under the short-term assignment RIA is Option 2.

3.19 ComReg noted that this preferred option was formed based on Incumbent Licensees

being best placed to address the consumer disruption arising from the expiry of existing 700 MHz and 2.1 GHz rights of use. ComReg considered it unlikely that other operators would be able to address this consumer disruption given the short notice and the limited duration. Rather, it would only involve Incumbent Licensees because it involves issues of service continuity that are relevant to them only. However, ComReg noted that it was open to the possibility that operators other than the incumbent MNOs may contend that they would also be able to mitigate any disruption to services that MNO customers would experience if they were granted some of these rights of use instead of an MNO. ComReg noted that any such contention should be substantiated based on certain criteria⁴³ and that ComReg would consider any justified requests as appropriate.

3.2.4 Licence Conditions (Chapter 5 of Document 22/72)

3.20 In relation to licence conditions, in Section 5.5 of Document 22/72 ComReg proposed to implement technical licence conditions in accordance with the relevant EC Decisions⁴⁴ and noted that rights of use issued as part of short-term licences would be granted on a service and technology-neutral basis, such that the deployment and provision of all technologies and services that comply with the relevant EC harmonisation decisions for those bands will be permitted.

3.21 ComReg's proposed licences conditions were then set out in Annex 3 "Draft Regulations".

3.3 Views of Respondents to Document 22/72

3.3.1 Short-Term ECS Licensing Framework from 2 October 2022

3.22 In its submission to Document 22/72, Eir endorses ComReg proposals to establish a short-term licensing framework, where it states:

"Eir agrees with ComReg's conclusion that it is appropriate to issue short term licences in the interest of mitigating consumer disruption, given the impact of COVID-19 measures have had on the consumption of mobile data services and the ongoing delay to the MBSA2 process arising from legal issues."

3.23 Further, Eir agrees with ComReg's proposal as set out in paragraph 5.99 of Document 22/72 to:

⁴³ See paragraph 4.67, p54 of Document 22/72.

⁴⁴ For the 2.1 GHz Band EC Decision 2012/688/EU amended by EC Decision 2020/667/EU and for 700 MHz Duplex EC decision 2016/687/EU.

“Allow Eir to apply for short-term licence that allows it to use its current 2.1 GHz holdings on a liberalised basis without needing to liberalise using the option provided in the Decision.”

- 3.24 Vodafone contends that short-term licences are needed to avoid significant consumer disruption and that support must be maintained for those locations that require capacity interventions to deal with ongoing volatility and variability in patterns of use.
- 3.25 Three notes the submissions to Document 22/63 and opines that this demonstrates a requirement for short-term licences in the 700 MHz and 2.1 GHz bands so as to avoid the claimed consumer disruption.
- 3.26 The MNOs also provided submissions on other aspects of the short-term licensing framework and further raised some other issues, which are set out and considered below. While all three MNOs support establishing a short-term licensing framework, each raised several points regarding the matter of appropriate licence fees. This is considered in Chapter 4.

3.3.2 Duration

- 3.27 In relation to the duration of any short-term licensing framework, it appears that all three respondents generally support the short-term duration proposal, noting that:
- Vodafone submits that the short-term licences should be for the minimum duration necessary;
 - Three submits that it supports the proposed duration of 3 months with a possible further 3 months; and
 - In its response to Document 22/63, Eir proposed a 6-9 month period⁴⁵.

3.3.3 Geographic Scope

- 3.28 In relation to the geographic scope of any short-term licensing framework, the three respondents support the proposal that it be national in scope, noting that:
- in their responses to Document 22/63, all three respondents submitted that short-term rights of use should be made available on a national basis⁴⁶; and

⁴⁵ See Section 3.2.3 of Document 22/72.

⁴⁶ See Section 3.2.4 of Document 22/72.

- in its response to Document 22/72, Three favoured ComReg's proposal to make licences available on a nationwide basis without specific location restrictions;

3.3.4 Assignment Approach

3.29 The MNOs did not generally comment on the various assignment elements proposed, being:

- Which technologies;
- Which providers;
- Quantum of spectrum;
- Frequency position; and,
- The use of an administrative assignment.

3.30 However Eir set out its interpretation that any temporary licences would not be used for new business (i.e. 5G), i.e. licences would be limited to only use up to 4G, therefore restricting 5G deployments.

3.4 ComReg's final position

3.4.1 Appropriate to put in place a short-term licensing framework

3.31 Having considered the views of respondents and other information before it, ComReg remains of the view that significant consumer disruption could occur if the relevant existing spectrum rights of use were to expire without a new short-term licensing framework in place. This would particularly be the case in rural and suburban areas in relation to the 700 MHz Band and suburban and urban areas in relation to the 2.1 GHz Band.

3.32 Having considered the views of respondents and the advice of DotEcon as outlined in Document 22/72a, and for reasons of potential consumer disruption as set out in Document 22/72, ComReg's final position is that it will put in place a short-term licensing framework for the 700 MHz and 2.1 GHz Bands from October 2022.

3.4.1 Duration

3.33 ComReg observes that the MNOs are generally supportive of the short-term licence duration proposed of 3 months with potential for a renewal for a further 3 months to also be provided for in the licensing framework.

- 3.34 ComReg's view is that the duration of any licences should be the minimum necessary to mitigate the claimed potential consumer disruption until such time that judgment on the substantive case is delivered (noting Mr. Justice McDonald's view in July 2022 that the stay granted by him would likely be for "*no more than a few months*"⁴⁷).
- 3.35 ComReg's final position is that the duration of any short-term licensing framework would be up to 3 months, although, ComReg will make provision for the possibility for a short renewal of up to a further 3 months.
- 3.36 Noting that the circumstances surrounding the MBSA2 project may change in the intervening period, ComReg will include specific provisions to minimise delays to the issue of long-term rights of use and provide for:
- the issuing of licences with a duration shorter than 3 months, should it be appropriate to do so, for example, if ComReg expected to issue long-term rights within the 3-month period; and
 - licensees to foreshorten any short-term rights of use issued and receive a pro-rata refund of any licence fees paid, for example, if such short-term rights are no longer needed by the licensee due to the issue of long-term spectrum rights.

3.4.2 Geographic scope

- 3.37 ComReg notes the views of MNOs to Document 22/63 and 22/72 that any short-term licenses issued should be on a national basis.
- 3.38 ComReg observes that the existing rights of use are issued on a national basis and the service disruption is in both rural, sub-urban and urban areas. Consequently, ComReg's final position is that any short-term rights of use issued should be on a national basis.

3.4.3 Assignment Approach

- 3.39 In the main, ComReg notes that respondents did not provide specific views on the assignment approach but indicated overall support for the short-term licensing framework.
- 3.40 Eir appears to misunderstand the proposed licensing framework, by assuming that it is limited to technologies up to 4G only. ComReg can confirm that any short-term licences issued would be issued on a service- and technology-neutral basis and that the technical conditions in the licence will be in accordance with the 700 MHz EC Decision and the 2.1 GHz EC Decision which permit all technologies and services

⁴⁷ Extract from court transcript, 20 July 2022.

compliant with the relevant EC decisions.

3.41 In relation to allowing Eir to obtain a liberalised licence in the 2.1 GHz Band for the duration of the short-term licencing framework, ComReg final position is to allow this, noting Eir's support for this proposal in Document 22/72 and that no other respondent commented.

3.5 Summary of ComReg's final positions

3.42 In summary, ComReg will:

- put in place a short-term licensing framework to address the expiry of existing rights of use in the 700 MHz and 2.1 GHz bands in October 2022 and the potential significant consumer disruption which could otherwise arise;
- make available short-term licences for a period of up to 3 months, with the possibility for renewal for up to a further 3 months. ComReg will also include provision for these licences to terminate early to allow for commencement of long-term rights of use;
- make available short-term licences on a national basis;
- administratively assign short-term licences to the incumbent licensees, i.e. the three MNOs, Eir, Three and Vodafone;
- provide for the incumbent licences to apply for up to the same quantum of spectrum as currently held under their respective existing rights of use in the 700 MHz and 2.1 GHz bands and in the same frequency locations;
- make available short-term licences on a service and technology-neutral basis;
- align the technical conditions of short-term licences with the technical conditions of the 700 MHz EC Decision and 2.1 GHz EC Decision as reflected in the draft Regulations in Annex 3 of this document; and
- make provision to allow for Eir to apply for 2.1 GHz short-term liberalised rights of use for the same frequencies that it currently holds.

Chapter 4

4 Radio Spectrum Fees

4.1 Summary of ComReg's view in Document 22/72

Approaches for administratively setting fees

4.1 ComReg considered three approaches for administratively setting fees for short-term rights of use in the 700 MHz and 2.1 GHz Bands:

- (i) setting fees by reference to a current estimate of market value;
- (ii) a nominal fee of €100 such as those used in the COVID-19 Temporary ECS Licensing Framework, or other related low fees or administrative costs recovery; and
- (iii) a continuation of the fees that are already being paid by MNOs for existing rights of use in the 2.1 GHz Band.

4.2 ComReg was of the preliminary view that fees should be set based on an estimate of market value as this is best aligned with the objective of ensuring the optimal use of the radio spectrum. In particular:

- setting fees below an estimate of the likely market value may lead to distortions of competition;
- allowing access to these bands for fees significantly below likely market value risks distorting efficient long-run investment decisions by operators; and
- fees set at market value would encourage MNOs to consider their spectrum requirements at the outset and provide incentives to return rights of use to ComReg if it was not using the radio spectrum or did not require it any longer.

4.3 In forming this preliminary view, ComReg noted that:

- fees set below the market value (e.g., nominal fees⁴⁸) would incentivise operators to avail of the spectrum only because it is provided at a low price and risk distortions to competition; and

⁴⁸ In practice, the administrative costs of running an award are likely to be small relative to the value of the spectrum, so this method may not be much different to the nominal price.

- setting fees for the 2.1 GHz Band based on the fees that currently apply to the 2.1 GHz Band could be viewed as excessive and unreasonable and could lead to short-term licences being turned down or returned to ComReg.

Estimating the market value of long-term rights of use

4.4 ComReg then assessed the three main approaches to estimating the market value of the radio spectrum in the current case and was of the preliminary view that benchmarking was the most appropriate approach.

4.5 ComReg was of the preliminary view that the following benchmarks, adjusted for Irish population and income levels (i.e., purchasing power differences) were appropriate:

- for the 700 MHz Band, a benchmark of €0.518 per MHz per capita would be appropriate because it would use the most recent European-only auctions in the last 5 years; and
- for the 2.1 GHz Band, a benchmark of €0.273 per MHz per capita would be appropriate because, similar to the 700 MHz Band, it would use the most recent European-only auctions in the last 5 years.

Adjustment for short-term nature of licences

4.6 Finally, ComReg considered whether such benchmarks should be adjusted to account for the short-term nature of the proposed licences. In doing so, ComReg acknowledged the possibility that there could be some reduction in the value of a short-term licence because they would not provide the long-term investment certainty. However, ComReg also noted that there were several mitigating factors, including that the costs of investment would also be delayed, and that MNOs could benefit if the competition arising from investment in widespread deployment of 5G is deferred.

4.7 ComReg noted that the early part of a licence is likely to have a lower valuation compared to the later part and that this should be reflected to some degree in the spectrum fees charged over a short duration. With that in mind, ComReg proposed a 10% concession as this would best represent the assumed growth in profitability of 1-2%. Therefore, ComReg proposed the following price points as an estimate of the market value of short-term licences

- for the 700 MHz Band, a benchmark of €0.466 per MHz per capita; and
- for the 2.1 GHz Band, a benchmark of €0.246 per MHz per capita.

The proposed spectrum fees

4.8 The benchmarks were then converted into the proposed spectrum fees for a 3-month period.

Table 3: Proposed fees for short-term licences

	700 MHz	2.1 GHz
Price per 2 × 5 MHz block per 3-month period ⁴⁹	€401,000	€212,000

4.2 Summary of Respondents Views

4.9 Each set of responses to Document 22/72 concerning fees is summarised below.

Eir

4.10 Eir does not agree with the fees proposed by ComReg which it contends are excessive and “*punitive*” in the context of issuing temporary licences in the interests of mitigating consumer detriment.

4.11 Eir opines that the methodology proposed by ComReg to calculate the 700 MHz short-term licence fees grossly overestimates the market value for these temporary licences and the fees for the temporary licences must therefore be significantly reduced to reflect the fact that, in its view, the major beneficiaries of the short-term licences are mobile consumers.

4.12 Eir provides the following views in relation to long-term investment:

- ComReg and DotEcon have both, in its view, ignored that short-term licences do not provide any foundation for MNOs to make long-term investment decisions;
- long-term decisions, it contends, can only be taken when an MNO has certainty in terms of the long-term spectrum rights it has access to. It states that the conditions to support long-term investment are not currently present; and

⁴⁹ Fees have been rounded to nearest thousand.

- it does not support the proposed 10% reduction because it is based, in its view, on the flawed premise that the temporary licensees can make long-term investments.

4.13 Eir further contends that, absent a supportive investment climate, the temporary licences have little economic value for licensees other than supporting the societal benefit of mitigating consumer disruption over potentially two adjoining three-month periods. It advocates for the market value benchmark to therefore be reduced by at least 90% as the nature of the short-term licensing is such that the spectrum has no long-term value.

4.14 In relation to the benchmarking approach, Eir contends that:

- the benchmarks include comparators which are not consistent in its view with the state of play in Ireland. It argues that Belgium, France, Hungary, Italy, and Sweden should be removed from the comparison as they relate to the outcome of awards in four player MNO markets and / or the amount of 700 MHz spectrum made available in the award was less than 2×30 MHz which, it postulates, has artificially constrained supply in those markets, thereby inflating demand and resulting in higher prices; and
- DotEcon appears not to have adjusted its benchmark for differences in payment schedules. In some of the benchmark countries (e.g., Italy and Belgium) bidders could pay the entire auction fee in instalments over the licence duration and so DotEcon must adjust its benchmarking to consider the time value of money.

4.15 Eir agrees with ComReg's proposal to allow Eir to apply for short-term licence that allows it to use its current 2.1 GHz holdings on a liberalised basis at no cost and without needing to exercise the liberalisation option provided under the MBSA2 decision.

Vodafone

4.16 Vodafone contends that fees for short-term licences should not be set in a way that discourages take-up, especially when the spectrum is likely to remain unused absent a short-term licence.

4.17 Vodafone queries whether the spectrum enables operators to make significant economic gains. Vodafone contends that it has added new capacity without any additional revenue stream through extra charges or enhanced services and that its efforts to maintain quality of service for customers were not profit generating. Rather, it contends that the economic argument would have been to do nothing which would have led to service degradation in suburban and rural areas.

- 4.18 Vodafone provides the following views in relation to long-term investment:
- ComReg’s proposal, in its view, would completely ignore that an operator cannot make a significant network investment decision based on a six-month temporary licence;
 - the market value must fully reflect the value of a short-term assignment which Vodafone argues is significantly less than a proportion of the whole period which is currently under consideration;
 - a short-term licence, of uncertain duration, does not facilitate the normal patterns of investment in new technology, marketing and applications that would be part of a 20-year investment in 5G and its value is instead the value received from maintaining levels of quality of service on existing 4G services; and
 - it is not fair, in its opinion, to charge the value of a long-term assignment for such short-term allocations and amendment/adjustment to current proposals is both appropriate and necessary.
- 4.19 Vodafone disagrees with ComReg’s view that investments are unlikely to have been made with a view to them being unwound once the temporary COVID-19 situation ended. Vodafone states that it mobilised plans at the request of Government at that time to introduce unlimited data packages to meet the higher ongoing demand of customers who now needed to work and connect from home in a different way. Many of these customers will now return to city-based offices and it will have to add new capacity in cities in the future. Furthermore, a move to 5G could render parts of this additional 4G capacity obsolete.
- 4.20 Vodafone agrees that ComReg’s objective should be to ensure the optimal use of radio spectrum, in line with ComReg’s statutory objectives. However, in its view, the usual ComReg justification for full market value spectrum fees does not apply in this circumstance because there is no feasible alternative user of this spectrum in the short-term. Therefore, it contends that there is no efficiency driver to set a high price for short-term usage.
- 4.21 Vodafone contends that ComReg has not made a reasonable assessment of true market value and that benchmarking against a select range of completed auction outcomes, with values above what Vodafone itself considers an arbitrary threshold, is not appropriate. The temporary nature of the spectrum significantly reduces its value, in its view, and must be the primary consideration in establishing a true value position.
- 4.22 Vodafone states that it has been unable to assess the impact of removing benchmarks where spectrum was sold at reserve but contends that if spectrum is

sold at reserve, then that is the market value.

- 4.23 Vodafone maintains that the assumption in ComReg's calculation fails to take account of the fact that operators cannot feasibly make (and have not made) any long-term investment in 5G while it holds a short-term licence.
- 4.24 Vodafone opines that the current use of this spectrum may be considered as a 'transitional usage', from the COVID-19 Temporary ECS Licensing Framework to some future stable situation. Vodafone notes that there is precedent for continuing a charging regime during a transition process, such as that which applied with WiMax licences and the allocation of 3.6 GHz spectrum.
- 4.25 Vodafone contends that the fee calculation should be based on a fair value, which fully considers in a realistic way the very reduced value that a short-term licence can realise for operators.
- 4.26 Vodafone provides the following alternative proposal:
- ComReg should use the benchmarks of 0.47 €/MHz/Pop for the 700 MHz band and 0.25 €/MHz/Pop for the 2.1 GHz band set for MBSA2 which are equivalent to prices for a 20-year licence;
 - the estimated market value for 700 MHz should then be adjusted downwards to take account of what Vodafone sees as the limited use to operators of short-term spectrum rights, and the overriding objective which is the avoidance of disruption to customer service. Vodafone proposes a fee not greater than [✕ █████ ✕] of the market value which corresponds to the approximately [✕ █████ ✕] proportion of its radio sites that currently use the 700 MHz spectrum;
 - Vodafone further opines that it would be appropriate to adjust upwards the [✕ █████ ✕] figure at any future 3-month extensions should the proportion of sites equipped with 700 MHz be extended.
- 4.27 In relation to the 2.1 GHz band, Vodafone proposes that the charge should be, at most, at the benchmark figure set out in the MBSA2 Information Memorandum.

Three

- 4.28 Three contends that ComReg has erred in interpreting the requirements for setting a licence fee for the short-term licences and also in the method used to derive them. Three argues that the result is that the proposed fees for short-term licences in the 700 MHz and 2.1 GHz bands are excessive.
- 4.29 Three sets out the following views in relation to long-term investment:

- in carrying out the benchmarking analysis, DotEcon has made a fundamental mistake by using data for 20-year licences to determine the expected market value of licences that are just 3 months in duration. The two are simply not comparable, in Three's view, and this renders the benchmark conclusion unusable as it grossly overestimates the licence fee in its estimation; and
- 20-year licences represent a long-term investment where returns can be made over the lifetime of that licence. It is not similarly possible, it contends, to recover the costs associated with using the spectrum over a very short-term, so data from a 20-year benchmark grossly overestimates its value.

4.30 Three recognises that in this circumstance other uses of the spectrum have been excluded but claims that it is still a fact that the opportunity cost is zero. Three contends that ComReg's position regarding the circumstances which give rise to zero opportunity cost is the opposite of positions taken by ComReg in relation to MBSA2 and the COVID-19 Temporary ECS Licences:

- in the case of MBSA2, Three was prevented from bidding for a third lot of 700 MHz of spectrum by the decision to impose a cap on Three, then the value Three has for a third lot is irrelevant and should not be taken into account when determining the fees to be paid by other bidders, i.e., Three contends that ComReg's position is that the opportunity cost counted should be zero; and
- Three suggests ComReg has also drawn a similar conclusion in relation to the COVID-19 Temporary ECS Licences, where ComReg noted that the opportunity cost associated with temporary 2.1 GHz liberalised rights is likely zero.

4.31 Three opines that contrary to the concerns raised by ComReg, low fees are not going to distort competition because the duration of the licences proposed is too short and long-term investment decisions will not be made on this basis. It contends that the licences will be obtained to protect existing services.

4.32 Three contends that DotEcon apparently recognises that there will not be a long-term risk of distortion to competition arising from the grant of either 2.1 GHz or 700 MHz spectrum. In support of its contention, Three references various passages from the DotEcon report (Document 22/72a) and argues that DotEcon's conclusions regarding distortions to competition are not conditional on any particular licence fee that may apply.

4.33 Three argues that ComReg's concern regarding the potential for incumbent licensees to seek to delay awards simply to maintain short-term licences at low fees is not well founded. Instead, Three contends that operators do not have a means to delay

awards other than as set out in law, and it is not credible to suggest, in its opinion, that operators would take an appeal or other legal action for such a purpose.

4.34 Three comments that Eir has suggested retrospective fees in its response (i.e., that once the long-term award process is concluded all fees should be effective from 2 October 2022 or 15 October 2022, as appropriate for the 700 MHz and 2.1 GHz bands and backdated as appropriate). Three contends that this proposal warrants further consideration and posits the following:

- the short-term licences fall within the time when ComReg says that MBSA2 licences were intended to operate. Because the short-term licences exist entirely within the originally planned duration of the MBSA2 licences, it would seem logical, in Three's view, that for any MNO who obtains a short-term licence, the fee for same should be offset against the licence fee for any spectrum ultimately won in the MBSA2 award; and
- Three disputes DotEcon's view that retrospective fees might distort bidding in the long-term award because bidders are not going to alter their bidding for 20-year licences to make a saving on a 3-month licence.

4.35 In relation to the 10% discount proposed by ComReg, Three contends that this reflects the fact that over the course of a long-term licence, returns are likely to be greater in later years (which itself seems to be correct for a long duration licence), however for a very short-term licence there is likely no opportunity to make a return at all, which in its view suggests that a nominal licence fee or a fee based solely on administrative costs is appropriate.

4.36 In relation to the benchmarking methodology, Three makes the following comments:

- the switch from using the geometric to arithmetic mean for the short-term licence fees seems strange to Three given the acknowledged uncertainty involved in using benchmarking and the consequence of an excessive price which would be to create a barrier to obtaining a licence;
- in the datasets used, DotEcon has chosen to eliminate references where spectrum has sold at the reserve price. This is incorrect, in the view of Three, as a case where spectrum sold at reserve represents the highest fee obtained for that particular assignment and is just as valid as any other data point; and
- Three posits that if the spectrum has been set-aside at the reserve price for some purpose (e.g., a new entrant) then the benchmarking analysis should not simply eliminate the reserved spectrum datapoint without also adjusting the other prices to reflect that those prices would have been artificially inflated by the reduced supply remaining available to bidders.

- 4.37 Three does not believe the 10% adjustment is adequate to make the benchmark reflective of very short-term licences. Three maintains that greater returns can be expected at the later years of a long-duration licence. In order to replicate this in the linear annual growth table (Table 2 of the DotEcon report, Document 22/72a), Three approximates that the assumed annual profitability growth rate should be approximately doubled to 8% (without prejudice it claims to other views).
- 4.38 In the context of the stay application heard by the High Court in June 2022, Three submits a clarification that its views expressed then were to explain to the court that ComReg's potential State aid concerns can be eliminated by charging an appropriate fee and a fee based on the reserve price.
- 4.39 In paragraphs 5.29 and 5.30 of Document 22/72, ComReg referred to the fees charged for mobile satellite services where the licences had a 10-year duration, and where ComReg was concerned with a possible distortion to competition. Three submits that this situation is not comparable due to the difference in licence duration and so there is no prospect of long-term distortion of competition.

4.3 ComReg's assessment of respondents' views

- 4.40 ComReg's assessment on the views of respondents is provided under the following broad headings:
- (i) Background information on potential value of the spectrum;
 - (ii) Authorisation regulations;
 - (iii) Approaches to setting fees:
 - (a) ComReg proposal of fees based on market value;
 - (b) Claims of zero opportunity cost; and
 - (c) Vodafone's site proposal;
 - (iv) Appropriateness of market-value based fees;
 - (v) Impact of fees below market value;
 - (vi) Approach to estimating market value;
 - (vii) Long term investment and potential short-term discount; and
 - (viii) Other issues.
- 4.41 Following this, ComReg sets out its final position on fees for short-term rights of use, and sets out a table summarising the fees that would arise from the large range of fee proposals suggested by the MNOs and considered in the consultation.

4.3.1 Background information on potential value of the spectrum

4.42 This section sets out various information that is available on the potential value of the 700 MHz and 2.1 GHz Bands.

4.43 The 700 MHz and 2.1 GHz Bands are a valuable State resource used to deliver a variety of mobile services. As outlined in Chapter 2:

- the 2.1 GHz Band has long been used for the provision of 3G services, more recently, 4G and some 5G services and, as such, is a core band for the delivery of mobile services in the State; and
- the 700 MHz Band has been licensed (over several COVID-19 temporary licences) for over 2½ years and has been used for the deployments of 4G services.

2.1 GHz Band

4.44 In relation to the 2.1 GHz Band, the existing fees for those rights which are currently in use amount to approximately **€823,000 per 3-month period**⁵⁰. While these rights of use were issued in 2002 (Three and Vodafone) and 2007 (Eir), the recently issued Interim 2.1 GHz band licences in July 2022 (and potentially again before October this year) fees are based on these charges:

- For the Interim ‘A’ 2.1 GHz Band Licence, Three applied for and was assigned this licence, by way of direct administrative assignment, so as to co-terminate its 2.1 GHz rights expiring on 24 July 2022 with those of Vodafone which expire on 15 October 2022. The fee for an Interim ‘A’ 2.1 GHz Band Liberalised Use Licence is **€725,415 per 2 × 5 MHz block** corresponding to an 83-day period; and
- For the Interim ‘A’ 2.1 GHz Band Licence, Three has applied for this licence, by way of direct administrative assignment, so as to co-terminate its 2.1 GHz rights expiring on 1 October 2022 with those of Vodafone which expire on 15 October 2022. ComReg will issue this licence to Three upon payment of the relevant fees. The fee for an Interim ‘B’ 2.1 GHz Band Liberalised Use Licence is **€120,508 per 2 × 5 block** corresponding to a 12-day period.

4.45 Separately, and in order to set reserve prices and spectrum usage fees (“SUFs”) for the MBSA2, in 2021 ComReg commissioned a benchmarking exercise⁵¹ to provide

⁵⁰ ComReg notes that it has made pro-rata adjustments of this nature in both Interim 2.1 GHz fees for MBSA2 (See Annex 5 Document 20/122) and interim 900 MHz fees in MBSA1 (Document 11/29).

⁵¹ Benchmarking is a means of estimating the value of spectrum using observed prices in similar concluded auctions - and adjusting to take account of Irish population and income levels (i.e., purchasing power differences).

a conservative estimate of the market value of the spectrum rights in that award. Using these benchmarks, the fee for a 3-month period is estimated at **€213,000 per 2 x 5 MHz 2.1 GHz block**.

- 4.46 A similar benchmarking exercise conducted for this consultation resulted in a fee of **€226,000 per 2 x 5 MHz block**, once adjustments for Irish population and income levels (i.e., purchasing power differences) were considered.

700 MHz Band

- 4.47 In relation to the 700 MHz Band, ComReg made these rights of use available during an unprecedented national emergency (COVID-19) where the Government swiftly introduced and maintained 'stay-at-home' measures, in order to support services which were increasingly relied upon. This included a range of essential services over the phone and online.
- 4.48 Given the exceptional circumstances pertaining at the time, ComReg imposed a nominal fee of just €100 per licence for each 3-month period. This means that individually the MNOs have each paid a grand total of just €1,000 each for access to this highly valuable spectrum over the previous 2½ years. Using the minimum prices for MBSA (adjusted for inflation), the 700 MHz rights of use licensed to each MNO for that 2½ year period would have been valued at a minimum of approximately €9 million per MNO (€27 million for all MNOs)

Fees in previous Irish auctions and interim licensing

- 4.49 Other potentially useful information about the value of the spectrum concerns substitutable rights of use that were assigned through previous interim licensing or relevant auctions in Ireland. See also Section 6 of the DotEcon Report.
- 4.50 Given their technical characteristics, the 700 MHz Band can be considered substitutable with the 800 MHz and 900 MHz Bands. The MBSA1 award⁵² and the fees for interim licence in the 900 MHz Band put in place before that award provide relevant information.
- Using the MBSA1 auction, it is estimated that substitutable 800/900 MHz rights of use are valued at **€772,000 per 2 x 5 MHz block** for each 3-month period; and
 - Interim 900 MHz rights of use that were required before MBSA1 because Vodafone and O2's respective existing GSM 900 MHz licences were expiring

⁵² ComReg, "[Multi-Band Spectrum Award 2012](http://www.comreg.ie)", available at www.comreg.ie.

in May 2011 (prior to the February 2013 commencement of new licenses) were valued at **€518,000 per 2 × 5 MHz block** for each 3-month period.

- 4.51 The 1,800 MHz Band can be considered substitutable with the 2.1 GHz Band (though 1,800 MHz is likely to be worth more given its more favourable propagation characteristics). It is estimated that substitutable 1800 MHz rights of use are valued⁵³ at **€386,000** per 2 × 5 MHz block for each 3-month period.

4.3.2 Authorisation Regulations

- 4.52 In its submission to Document 22/72, Three refers to paragraph 5.3 of Document 22/72 and states that ComReg has misinterpreted the Authorisation Regulations as requiring it to set fees to reflect the value of use. At paragraph 5.3 of Document 22/72, ComReg notes:

“In accordance with Regulation 19(1) of the Authorisation Regulations, ComReg is permitted to impose fees for rights of use for radio frequencies which reflect the need to ensure their optimal use. In the normal course, ensuring that operators make optimal use of scarce resources essentially means that fees are set at an appropriate level to reflect the value of the use of those resources, having regard to any significant factors determining that value.”

- 4.53 In support of this view, Three refers to Regulation 19(2) of the Authorisation Regulations which provides that:

“The Regulator shall ensure that any such fees referred to in paragraph (1) shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the objectives of the Regulator as set out in section 12 of the Act of 2002 and Regulation 16 of the Framework Regulations.”

- 4.54 Three submits that the above regulation does not mean that fees must be set to reflect the value of use. Instead, Three argues that, as short-term rights will be administratively assigned, that the licence fee will not have a role to play in determining an efficient outcome and that there is no requirement under the regulations to charge a licence fee that reflects “*the value of the use of those resources*”.

- 4.55 ComReg disagrees, the Authorisation Regulations are clear that ComReg may set a fee to ensure the optimal use of spectrum, and in Document 22/72 the merits of setting various different fee approaches (including nominal fees) were considered. In

⁵³ As per Section 6 of the DotEcon Report.

this regard, the text of paragraph 5.3 of Document 22/72 ComReg merely states that:

“In accordance with Regulation 19(1) of the Authorisation Regulations, ComReg is permitted to impose fees for rights of use for radio frequencies which reflect the need to ensure their optimal use. In the normal course, ensuring that operators make optimal use of scarce resources essentially means that fees are set at an appropriate level to reflect the value of the use of those resources, having regard to any significant factors determining that value. In that regard, there is little doubt that rights of use for scarce resources, such as the spectrum bands in question, enable the holder of those rights to make significant economic gains”⁴⁴. [Emphasis added].

Footnote 44 of Document 22/72: *“As noted in Recital 107 EECC, radio frequencies have an ‘important public and market value’”.*

4.56 It is well established that a good way to ensure optimal use is to assign some value in use (e.g., an auction typically determines this value in use through a market mechanism). As described in Document 22/72 (Paragraph 4.37 - 4.40), ComReg was of the view that the use of an auction is not appropriate to determine the assignment of short-term rights of use because, among other reasons, if short-term licences are granted only to the MNOs and only in relation to their existing spectrum holdings, then there can be no scope for a conflict in demand for any of the available licences, and there is therefore no need for a process to resolve that. Further, it would not be feasible, in this case, to complete an auction in advance of expiry of licences. Therefore, an administrative assignment was deemed appropriate. All respondents agree on this point.

4.57 ComReg then described various approaches that could be used to determine administrative fees in order to ensure the optimal use of the spectrum and was of the view that fees should be based on market value using a benchmarking approach with a discount to account for any short- term effects.

4.58 This is consistent with the Authorisation Regulations, the European Electronic Communications Code (“EECC”) and relevant EU case law. Article 45 (1) of the EECC is clear that “economic value” is part of the assessment when determining setting fees for rights of use.

4.3.3 Approaches to setting fees

ComReg proposal based on market value

4.59 In Document 22/72, ComReg proposed that fees for short-term licences should be based on an estimate of market value because this is best aligned with the objective of ensuring the optimal use of the radio spectrum. In summary:

- If the use of the spectrum (even on a short term basis) results in distortions to competition, then the optimal use of the spectrum would not be provided for in line with ComReg's statutory objectives⁵⁴. In that regard, setting fees below an estimate of the likely market value may distort competition:
 - between MNOs and operators who compete at the margin for certain services that are delivered using these frequencies (e.g., fixed wireless/broadband or fixed broadband); and
 - amongst the three MNOs by providing Vodafone and Three with access to comparable 2.1 GHz spectrum considerably below the price currently paid by Eir for its existing 2.1 GHz licence and that will apply during the period of any short-term licensing regime.
- Allowing access to these bands for fees significantly below likely market value risks distorting efficient long-run investment decisions by operators noting that charging the likely market value is necessary if MNOs are to have the correct incentives to continue to make efficient decisions now concerning their long-run spectrum positions. Further, fees set at market value would encourage MNOs to consider their spectrum requirements at the outset and provide incentives to return rights of use to ComReg if it was not using the radio spectrum or did not require it any longer.

4.60 For these reasons, ComReg proposed to set fees based on an estimate of market value. The respondents' views in relation to ComReg's rationale for proposing fees based on a market value are discussed in the sections below.

Claims that the opportunity cost of the spectrum is zero

4.61 Three argues that due to the circumstances under which other uses of the spectrum have been excluded, the opportunity cost is zero and fees should therefore be nominal or based on administrative cost.

4.62 DotEcon notes that there is no merit in Three's claim because only the MNOs are given the option for short-term licences through an administrative decision by ComReg to grant access to spectrum selectively to avoid consumer disruption. In particular, DotEcon notes that:

⁵⁴ ComReg notes that in more normal circumstances, such as MBSA2, an open competition (with appropriate spectrum competition caps) where prices are determined based on the interaction of bidders during the award would provide significant protections against concerns around distortions to competition. However, these measures cannot be implemented here given the need to prevent likely immediate and significant consumer disruption and therefore spectrum fees play an important role in avoiding such distortions for short term-licences.

- regardless of whether other MNOs are likely the most efficient users in the short-term, other allocations of the available spectrum are clearly possible in principle, implying that opportunity costs are not zero; and
- short-term spectrum rights of use going unused is not necessarily inefficient. If short-term licences were taken up at a zero price, this might, at the margin, create risks of various distortions. Avoiding such distortions and ensuring optimal use of spectrum requires setting a fee for short-term rights that is reflective of market value.

- 4.63 ComReg agrees with DotEcon - Three's hypothesis can only be constructed because of the particular facts in hand, that is because of Three's own application for a stay subsequently granted by the High Court which, in turn, has led to an administratively determined decision focussed solely on incumbent MNOs to avoid any potential for consumer disruption. ComReg also agrees that Three's approach would lead to the perverse situation where no fees or only administrative fees would ever apply in similar situations (e.g., interim licences) and such an approach is clearly contrary to ComReg's consistent practice in the past and is unsustainable (see paragraph 5.31 Document 22/72).
- 4.64 Three refers to ComReg's approach in MBSA2 and the COVID-19 Temporary ECS Licensing Framework to sustain its claim that the opportunity cost for the spectrum being made available is zero. However, ComReg notes that Three is incorrect in respect of both approaches.
- 4.65 First, in relation to MBSA2, DotEcon notes that Three ignores that it is unable to bid for a third block of 700 MHz spectrum in the MBSA2 auction for competition reasons. Three cannot bid for a third 700 MHz lot due to the sub-1 GHz competition cap and so cannot impose an opportunity cost on other winners of 700 MHz spectrum in the scenario that the three MNOs are the only bidders for 700 MHz. However, this does not then imply that there are no potential alternative users for the two blocks of 700 MHz spectrum granted administratively to Three.
- 4.66 ComReg agrees with DotEcon and notes that the circumstances under which 700 MHz rights of use are being administratively granted are significantly different from the circumstances of MBSA2 where there is a competition cap. Further, Three is simply wrong to state that "*ComReg's position is that the opportunity cost should be counted as zero*". There is no situation where the opportunity cost of any lot or group of lots is counted as zero in MBSA2. As Three is aware, the pricing approach in MBSA2 imposes a reserve price floor on opportunity costs set at a conservative estimate of market value such that the value of any unsold lot is at the reserve price.

This is articulated in Paragraph 4.165 of the MBSA2 Information Memorandum⁵⁵.

4.67 Second, in relation to the COVID-19 Temporary ECS Licensing Framework and the quotes articulated by Three⁵⁶, DotEcon notes that ComReg only mentions the possibility of a zero-opportunity cost in the context of allowing liberalised use by the MNOs of existing technology-specific 2.1 GHz licences, where existing use clearly precludes any other users.⁵⁷ ComReg agrees and notes that:

- the opportunity cost associated with COVID-19 temporary liberalised rights was likely zero because the 2.1 GHz Band was already assigned to the three MNOs and there were no other users that could make more efficient use of the band since those rights of use could not be made available to anyone else. In contrast, the proposed short-term assignment is considering the case where those existing 2.1 GHz rights of use have expired and ComReg is proposing to make available new rights of use; and
- the current 2.1 GHz licences were already subject to a Spectrum Access Fee (“SAF”) and annual Spectrum Usage Fees (“SUFs”) designed to encourage their efficient use. DotEcon previously advised that it is unlikely that the market price of the 2.1 GHz spectrum determined in MBSA2 would be above the fees for existing 2.1 GHz licences. Therefore, there was no basis to levy additional fees for the liberalisation of existing 2.1 GHz rights of use in those circumstances.

4.68 ComReg agrees with DotEcon that a more relevant precedent is the existing interim 2.1 GHz licences for Three under the MBSA2 Decision. These interim licences until 15 October 2022 involve a fee equivalent to the original price of the existing licence (pro-rata for the period of the interim licence). The short-term fees proposed in this consultation are significantly lower than the existing 2.1 GHz fees (including the interim 2.1 GHz licence fees that apply to Three). ComReg considered similar views expressed by Three in respect of its current interim 2.1 GHz licences in Annex 5 of Document 20/122, and notes that Three did not challenge that aspect of the MBSA2 Decision which has now resulted in it now, in fact, paying much more than a nominal

⁵⁵ Which states “The Opportunity Cost of a Bidder, or a group of Bidders, is defined to be the difference between:

- *the value of the hypothetical winning assignment in a scenario where all Bids from the Bidder(s) in question were excluded; and*
- *the value of the original winning assignment less the total Bid Amount from all Winning Bids from the Bidder(s) in question.*

As above, the value of a winning assignment is the total of the winning Bid Amounts plus the value of any unsold Lots at corresponding Reserve Prices.”

Note, in addition to the Spectrum Access Fee (SAFs) determined at auction there are annual Spectrum Usage Fees (SUFs) to be paid over the duration of the licence.

⁵⁶ See page 4 of Three’s submission to Document 22/72 (available in Annex 6 of this document).

⁵⁷ ComReg Document 20/21, at paragraph 3.61.

fee for its interim licences (i.e., a market-based fee, see Section 4.3.1 above).

Vodafone site proposal

- 4.69 Vodafone's proposal is that fees for 700 MHz should be based on the number of sites at which it uses the band, with the option to add more sites and pay for same at end of the initial 3-month review.
- 4.70 DotEcon notes that Vodafone does not specify how the pricing would work for other MNOs, who may be making greater use of 700 MHz spectrum at present and would presumably pay more than Vodafone. Further, DotEcon notes that such an approach raises major concerns about the efficient use of spectrum, as it gives incentives to use spectrum at a limited number of base stations to reduce fees, leaving those frequencies fallow elsewhere. This would be clearly contrary to the requirement that ComReg set fees to promote optimal use of spectrum.
- 4.71 ComReg agrees with DotEcon that such an approach would not encourage the optimal use of the spectrum because it provides incentives to limit rollout to particular base stations rather than using it across a wider area. ComReg notes that rights of use are not being limited to existing base stations and all MNOs agreed that short-term rights should be made available on a national basis. For example, Vodafone noted that "*the requirement for this spectrum is nationwide*"⁵⁸. It follows, therefore, that fees have to be reflective of the nationwide use of the spectrum and not where Vodafone currently uses the spectrum.
- 4.72 Licensees, having paid a fee that reflects the market value of the spectrum, are then incentivised to roll out sites in accordance with their nationwide requirements. Indeed, Vodafone acknowledges that under its approach an update to fees may be required after it has extended to new sites. However, such an approach would be inappropriate, being equivalent to granting a nationwide licence yet only paying fees for a portion of that nationwide use. By contrast, ComReg's approach is consistent with its previous approaches to the assignment of nationwide licences.
- 4.73 In relation to the 2.1 GHz Band, ComReg notes that Vodafone's suggestion that fees in the 2.1 GHz Band be no higher than the benchmarks in MBSA2 would result in fees that are effectively the same as the fees proposed by ComReg for short term licences (Section 6 of the DotEcon Report for a relative comparison of the fees that would apply under the different fee proposals).

⁵⁸ See Vodafone's submission to Document 22/63 as published in Annex 4 of Document 22/72.

4.3.4 Appropriateness of fees based on market value in current circumstances

4.74 As noted above, the 2.1 GHz Band is a well-established core mobile band integral to all MNO networks, and MNOs are benefiting from the liberalisation of 2.1 GHz spectrum rights. This was provided for in the MBSA2 Decision considering, among other things, that long-term licences would be awarded shortly afterwards in the MBSA2 award. Separately, in the 2½ years, since the assignment of 700 MHz rights of use for €1,000⁵⁹, the MNOs have improved and expanded their networks and services, notably rolling out 4G services across a combined 3,575 mobile sites.

- [✕ [REDACTED] ✕] sites for Eir;
- [✕ [REDACTED] ✕] for Three; and
- [✕ [REDACTED] ✕] for Vodafone.

4.75 Operators commenced this rollout at a peppercorn rate, when during the early part of an equivalent long-term right of use they would have had to pay upfront SAF and ongoing stream of SUFs. The minimum price that each MNO would have had to pay for the equivalent 700 MHz spectrum blocks under the MBSA2 auction over the same 2½ years (and adjusted for inflation) would have been at a minimum of **€27 million**⁶⁰. Spectrum at 2.1 GHz is already well used, as long-term licences are now coming to an end.

4.76 There is **significant benefit** to short-term spectrum licences deployed for ‘business as usual’ with existing network infrastructure. Indeed, the MNOs implicitly acknowledge this situation when agreeing with ComReg that short-term licensing is necessary to prevent consumer disruption. Existing users clearly have a strong need for spectrum in the short-term if operators have little time to make alternative arrangements if spectrum were to be unavailable.

4.77 Importantly, in the current case, and in relation to investments already made in the 700 MHz Band, ComReg is not referring to investments in new technologies such as 5G⁶¹ (which continue to be delayed) but rather ‘business as usual’ investments which

⁵⁹ See Chapter 2 of this document for information on the number of sites deployed in the 700 MHz band.

⁶⁰ The price per 2 x 5 MHz 700 MHz block on an annual basis is €1.8 million using MBSA2 minimum prices. The price for the six 2 x 5 MHz 700 MHz blocks over a 2 ½ period is approximately €27m (i.e. €1.8m x 6 x 2.5).

⁶¹ ComReg remains of the view that these investments are being delayed and the fact that there has been no rollout of 5G by any operator in the 700 MHz Band supports this view.

are normally made for existing 4G services.⁶² Indeed, these investments are likely to be earning an ongoing return given their objectives on the delivery of existing services rather than future 5G requirements.

4.78 The economic value to MNOs consists of the revenues that would arise from having access to particular spectrum rights of use. MNOs are already delivering services and earning profits using these rights of use. Such value could arise in several ways, such as higher numbers of customers, higher spending of customers and greater retention of customers (i.e., lower customer churn rates) all of which would ultimately flow through to the operator's profitability. For example, ComReg notes that:

- MNO networks are serving approximately 425,000 more consumer mobile subscribers (i.e., mobile and mobile broadband)⁶³ compared to the start of the COVID-19 Temporary ECS Licences in Q1 2020;
- mobile retail revenues for the first 6 months of this year increased 4.1% (YoY) to €789 million⁶⁴.the highest in a decade for a six-month period.
- mobile data volumes have increased by around 80% since the start of 2020⁶⁵, and the 700 MHz and 2.1 GHz carries between [✕ ██████████ ✕] of all mobile data traffic (depending on the operator) and between [✕ ██████████ ██████████ ✕] of all mobile voice traffic (depending on the operator)⁶⁶; and
- pricing data from Teligen⁶⁷ shows that the price of Irish mobile plans has increased since Q1 2021, predating the increase of inflation in 2022. Such price increases are to continue for all networks, with Three⁶⁸, Vodafone⁶⁹ and

⁶² Even if operators were making limited use of any bands made available with low fees, the benefit of incumbency could impact the decisions an operator takes in terms of the type of spectrum it requires in MBSA2. These decisions may have been different had rights of use been made available on the basis of market value.

⁶³ This increases to 1.7 million if Machine to Machine subscriptions are included.

⁶⁴ See [ComReg, "QKDR Data Portal"](#) available at www.comreg.ie.

⁶⁵ Ibid.

⁶⁶ Based on the information supplied to ComReg by MNOs in their submissions to Document 22/63.

⁶⁷ Teligen pricing data published on ComReg's data portal shows that the lowest price available to an Irish consumer for a typical mobile plan (with a minimum bundle of voice data and SMS) began to increase Q1 2021, with an increase from €8.61 to €11.72 for a pre-paid plan (with at least 100 calls, 20 SMS & 2GB) and €14.81 to €15.50 for a post-paid plan (with at least 300 calls, 40 SMS & 5GB) (values not exact as adjusted for Purchasing Power Parity ("PPP")). This trend is common to all MNOs with all sub-brands, GoMo (owned by Eir), 48 (owned by Three) and Clear Mobile (owned by Vodafone) increasing their prices during this period.

⁶⁸ Three announced it will increase prices for fixed voice, broadband, TV and mobile bill pay services including SIM Only and mobile broadband plans) by 4.5% from April each year. See Three, "*Three Bill Pay Annual Price Adjustment*", available at www.three.ie.

⁶⁹ Vodafone announced it will increase prices for Business and Consumer mobile bill pay plans, including sim only and mobile broadband plans by Consumer Price Index (CPI) published in the previous January, plus an additional 3% annually. See [Vodafone](#), "*Annual Price Adjustment Information*", available at www.vodafone.ie.

Eir⁷⁰ having announced plans to further increase prices, annually and by an amount greater than the rate of inflation.

- 4.79 Each of the three MNOs have argued that ComReg should set fees nominally because rights of use have a low economic value and/or that there are no returns to be earned from short-term licences. This is inconsistent with the extensive use that MNOs have made and continue to make of these valuable spectrum rights of use. If there is little value in short-term licences for operators then there would be no incentive for them to take up the licences at any price, and no need for short-term licences in the first place. Providing services and minimising disruption to existing customers has implications for operators' future revenue streams.⁷¹ Even if short-term profits are not affected, this does not mean there is no value from being able to protect longer-term revenue streams from the impact of losing customers and/or suffering reputationally if services were disrupted over the short-term period.
- 4.80 Finally, ComReg notes that both Eir (in response to Document 22/63) and Three (in response to Document 22/72) suggested various forms of retrospective pricing (i.e., using the results of the MBSA2 Auction to apply fees retrospectively for short-term licences) which would seem to indicate support for fees based on market value and apparently without any adjustment to account for the short-term duration. Fees set based on retrospective pricing would actually result in fees at a level at least equal to the minimum prices set for the MBSA2 award and potentially at a higher level if there is competition for these lot categories within the auction.
- 4.81 Considering the above, market-based fees are appropriate. ComReg typically sets fees by reference to opportunity costs because it is best aligned with ComReg's objectives, where such fees are objectively justified, transparent, non-discriminatory, and proportionate in relation to their intended purpose and consider the objectives of ComReg as set out in Section 12 of the 2002 Act and Regulation 16 of the Framework Regulations. This is discussed below.

4.3.5 Impact of fees below an estimate of the market value

- 4.82 When addressing ComReg's preference for fees based on market value, respondents provided various options (including nominal and administrative fees) that would result in fees below the likely market value of the spectrum. In Document 22/72, ComReg notes that setting fees below an estimate of the likely market value may: (a) create distortions to competition; (b) distort efficient long-run investment

⁷⁰ Eir announced it will increase prices for fixed voice, broadband, TV and mobile bill pay services (including SIM Only and mobile broadband plans) by Consumer Price Index (CPI) published in the previous January, plus an additional 3%, in January of each year. See Eir, "Annual Price Increase", available at www.eir.ie.

⁷¹ In relation to Vodafone's view that ComReg should consider the nature of changes in consumer demand arising from COVID-19, ComReg notes that there is no reason to suggest that such considerations would reduce operators value for the spectrum in the short-run (indeed it may increase it).

decisions by operators; and (c) create incentives to delay spectrum awards now and in the future. The responses to Document 22/72 are assessed below using these headings.

(a) Distortions to competition

- 4.83 DotEcon notes that none of the respondents addressed concerns regarding potential distortions to competition that could arise from fees being set below market value, leading to the three MNOs enjoying a selective benefit not available to others. As outlined in its first report (Document 22/72a), DotEcon notes that this could affect competition between mobile and other services operating at the margin and would also affect the relative treatment of MNOs within the 2.1 GHz band, where only Vodafone and Three would enjoy the benefit of a lower short-term licence fee (as Eir's existing 2.1 GHz licence would continue).
- 4.84 ComReg agrees with DotEcon and notes that no respondent provided any views on ComReg's concerns that low fees could impact competition between mobile operators and at the margin with other services. Therefore, and absent any evidence to the contrary, ComReg maintains its view that setting fees below an estimate of the likely market value could lead to distortions of competition.
- 4.85 Separately, under the heading 'distortions to competition' Three submits that a short-term licence will be obtained in order to protect existing services only and operators will not seek to obtain a 3-month licence due to a low licence fee because no gains are likely to be made on the back of a 3-month licence. ComReg has already addressed issues on the gains arising from a short-term licence above (Section 4.3.4). ComReg also notes that while avoiding consumer disruption is of primary importance, any proposed measures should, in as far possible, also avoid creating distortions that would compromise the MBSA2 award (See paragraph 4.12 of Document 22/72).
- 4.86 In that regard, ComReg notes that low fees could lead to operators being assigned short-term rights of use that are not necessary to prevent consumer disruption. If rights of use are assigned to operators for reasons other than consumer disruption, it could create distortions to the MBSA2 process and lead to situations where spectrum is assigned inefficiently in the long run.⁷² As noted by DotEcon, a general, and significant concern is that granting access to spectrum through short-term licences in advance of MBSA2 when not required for avoiding consumer disruption could in fact lead to unfair "toe-hold" advantages that might distort the outcome of

⁷² Giving operators access to spectrum that is not needed to prevent consumer disruption could affect the potential distribution of spectrum in MBSA2 by distorting the potential for outcomes which might have resulted in other bands being assigned instead.

the award of long-term licences when the award is ultimately run.⁷³

4.87 Short-term rights of use are only being made available up to the level of existing holdings. The actual assignment will be determined by operators themselves based on how much spectrum (if any) is required to prevent consumer disruption. If rights of use are made available at a low or nominal price, operators could apply for the maximum available rights of use and may not properly consider whether their existing rights of use in other bands could be used to assist in the prevention of consumer disruption. Three has already acknowledged that a reorganisation of its existing spectrum holdings could mitigate consumer disruption to some degree⁷⁴, and fees set at inappropriate levels would discourage operators considering such alternatives.

4.88 Three maintains that the DotEcon Report (Document 22/72a) recognises that there will not be a long-term risk of distortion to competition arising from the grant of licences in either the 2.1 GHz or 700 MHz bands, references two parts of the DotEcon Report in support of its claims and submits that ComReg's conclusions are not conditional on any particular licence fees applying. Consequently, Three says that preventing the distortion of competition, or the "toe-hold" does not require that licence fees are set at the levels proposed.

4.89 ComReg disagrees. Three refers only to certain references from the DotEcon Report which relate to the distortions of competition that might arise due to the accumulation of rights of use arising from short-term rights of use. DotEcon's views were based on the price for such rights of use not being too low. For example, in relation to the 2.1 GHz band, the remainder of the paragraph referred to by Three (but not quoted by it), notes the following:

*"Therefore, short-term licences for the MNOs, for no more than the amounts of spectrum already held **and at prices that are not too low**, are unlikely to change the position of operators going into the MBSA2 auction when eventually run." [Emphasis added].*

4.90 Similarly, in relation to the 700 MHz Band, the reference provided by Three clearly states that DotEcon's views are based on prices not being set too low:

*"We therefore do not envisage that granting short-term licences should have any substantial impact on the position of operators going into the MBSA2, provided that each MNO is limited to two blocks of 700 MHz **and prices are not too low**" [Emphasis added].*

⁷³ See p29 of Document 22/72a.

⁷⁴ As noted by Three in response to Document 22/63, "if short term licences are not made available, then it will be necessary for network operators to re-configure networks (to whatever extent that is possible) in an attempt to maintain current services. This re-configuration of networks would require the reduction of spectrum available for 5G services today and would set-back its development in Ireland".

- 4.91 Finally, ComReg recalls that Mr. Justice McDonald, in his judgement concerning the stay, observed that potential State Aid concerns arising from setting nominal fees for short-term licences (for valuable State resources) could be addressed by imposing a “commercial” licence fee.
- 4.92 Considering the above, ComReg remains of the view that setting fees below an estimate of the likely market value may lead to distortions of competition.

(b) Investment decisions

- 4.93 Eir questions ComReg’s consideration of the need to encourage efficient long-run investment decisions in circumstances where Eir says that long-run investment cannot be made due to the duration of the short-term licence.
- 4.94 DotEcon notes that even where the short-term licences lasted no longer than 3 months, the 700 MHz Band could further be integrated into MNOs existing networks, even if significant new investments in 5G were yet to be made. All MNOs are already using 700 MHz spectrum for 4G on existing networks, and so there is some advantage conferred on incumbent users when competing for long-term rights. Further, there is some diversity in operators’ views about how best to use short-term access to spectrum (as evidence by the different rates of rollout). If an operator judges that a cautious attitude to deployment of spectrum available on an interim basis is available, it would be inappropriate to bias that decision by making further access available at far below a market price.
- 4.95 ComReg agrees with DotEcon and notes that an operator might commit to retaining spectrum in a band (which was made available with low fees) when it might otherwise have sought less or switched to a different band had the MBSA2 auction been run to the intended timetable. In such circumstances, the assignment of spectrum in MBSA2 would have been impacted by the fees for short-term rights that immediately preceded it. As noted previously, while preventing consumer disruption is of primary importance, it should be achieved without creating distortions that would compromise ComReg’s broader objectives in MBSA2 (given the long-term benefits to consumers that would arise out of that award).
- 4.96 ComReg notes that these investment decisions may have already been distorted to some extent given the nominal fees applied to the COVID-19 Temporary ECS Licences. However, these licences were provided under exceptional and unprecedented circumstances, and it remains the case that operators still have further investment decisions to make (e.g., to invest in 5G in the 700 MHz Band or otherwise) and continued use of low fees could distort such decisions prior to MBSA2.
- 4.97 Further, and while ComReg is not suggesting that inefficient long-run investment decisions have been made, it does agree with DotEcon in that there are no good

reasons why ComReg would want to run the risk of such distortions to long-run efficient spectrum usage by setting a fee for short-term spectrum access far below a reasonable estimate of market value.

- 4.98 Vodafone disagrees with ComReg's view that investments already made are unlikely to be unwound. However, ComReg notes that this contrasts with Vodafone's view in March of this year when it was arguing in favour of an extension to the COVID-19 Temporary Spectrum Management Measures:

*"Vodafone would make it clear we are continuing to invest heavily in network coverage and capacity. However, we do need ensure, for the general good, that investment is efficient and directed to locations where **long-term requirements are justified**".⁷⁵ [Emphasis added]*

- 4.99 Vodafone's 4G investments in the 700 MHz band were made with a long-runtime horizon and these investments are highly unlikely to be unwound to any significant degree. ComReg also notes the considerable coverage and quality of service obligations associated with long-term 700 MHz rights would have been required in any event. The fact that the deployment of 5G in the 700 MHz Band may require some existing investment (e.g., in existing technologies) to be unwound in the future is part of the natural upgrade in mobile technologies rather than the result of inefficient investment taken by Vodafone - all technologies get unwound and replaced by updated technologies at some point in the mobile technology cycle (e.g., 3G is currently being switched off by Vodafone as 4G becomes more pervasive).⁷⁶

- 4.100 The fact that customers will now return to city-based offices (as stated by Vodafone) and operators will have to add new capacity to cities in the future is simply a fact of how consumers' use of data has changed and nothing in Vodafone's submission indicates that investments that it has made in rural areas or otherwise will be unwound. Indeed, Vodafone accepts that hybrid and remote working is here to stay. For this reason, ComReg remains of the view that such investments are unlikely to have been made with a view to being unwound.

- 4.101 Therefore, ComReg remains of the view that allowing access to these bands for fees significantly below likely market value risks distorting efficient long-run investment decisions by operators.

(c) Incentives to delay

- 4.102 Three says that operators do not have a means to delay spectrum awards other than as set out in law, and it is not credible, in its view, to suggest that operators would

⁷⁵ See Annex 3 of Document 22/22, "Non-confidential submissions to Document 22/17".

⁷⁶ See [The Irish Times](#), "Vodafone plans to phase out 3G as it modernises network", published 30 June 2022, available at www.irishtimes.com.


seek recourse to the Courts solely to benefit from low fees.

- 4.103 ComReg notes that the market value of the rights of use in question (i.e., 2 × 30 MHz in 700 MHz Band and 2 × 35 MHz in the 2.1 GHz Band) are worth approximately **€8.5 million for a 6-month duration**, using minimum prices from MBSA (adjusted for inflation). That might affect the position of some operators and provide clear incentives for delay if operators were of the view that short-term fees in the future would always be charged on an administrative or nominal basis (i.e., largely negligible fees in comparison). The extent of any response to such incentives is a matter for individual operators, but regardless of circumstances, even short delays to consultative processes or subsequent regulatory decisions could prove beneficial to operators.
- 4.104 Moreover, even if an award was delayed for reasons beyond any operator's influence, existing rights holders could benefit from nominal fees purely by dint of incumbency. Such circumstances would facilitate the postponement of costly investment decisions while at the same time enabling significant economic gains absent any need to compete for this valuable State resource or being subject to the risk of new entry into the market.
- 4.105 ComReg remains of the view that low short-term licence fees provide clear incentives for operators to seek delays to the awards of long-term rights of use.

Conclusion on fees below market value

- 4.106 Given the above, ComReg is of the view that fees set significantly below the likely market value of the spectrum are not appropriate and would not ensure the optimal use of the radio spectrum. Therefore, there is no basis for nominal or administrative cost-based fees. ComReg's fee proposals in this consultation aims to reflect the market value of the spectrum.
- 4.107 There is inevitably uncertainty around estimating a reasonable market value for spectrum rights to set fees, and that significant problems are only likely to arise from setting fees much too high or much too low. With that in mind, ComReg notes that the following approaches proposed by MNOs over the course of this consultation process are all significantly below the estimated market value and unsuitable for setting short term fees.

Table 4: Approaches below market value

Approach	Suggested by	Percentage (approx.) below market value
Nominal, Administrative Cost Recovery	All	99%
Reserve Prices	Three	60%
Spectrum Usage Fees	Three	40%
Assumed 8% profitability	Three	55%
Vodafone (number of deployed base station)	Vodafone	[✂  ✂]
Eir 90%⁷⁷	Eir	90%

4.3.6 Approach to estimating market value

4.108 In Section 5.4 of Document 22/72, ComReg considered three main approaches to estimating the market value of the spectrum. ComReg has received responses on each of these approaches, (a) existing charges (b) retrospective pricing and (c) benchmarking.

(a) Existing charges

4.109 Vodafone suggests that there is precedent for continuing a charging regime during a transition process, (e.g., 3.6 GHz spectrum).

4.110 ComReg notes that the fees for 3.6 GHz transition licences were based on existing fees. ComReg has already rejected the use of existing 2.1 GHz fees because such fees would run the risk of being excessive, and the use of €100 for the COVID-19 temporary rights, as these fees would be too low.

4.111 ComReg has provided its views above in relation to the price being too low. Conversely, if fees are set too high it could discourage operators from applying for rights of use which would create consumer disruption. In Para 4.165, ComReg provides its rationale for why its proposed fees are not excessive.

⁷⁷ In relation to Eir's view that the market value benchmark should be reduced by at least 90% because it does not have a long-term value, Eir has not provided any justification for such an approach and fees using this approach would clearly result in fees being set too low resulting in the same distortions as outlined in Paragraph 5.23 of Document 22/72.

4.112 However, as noted above, existing charges would run the risk of being excessive, particularly given that 2.1 GHz rights of use are around four times higher than fees proposed by ComReg. Even with existing charges in the 700 MHz Band at €100, an MNO that required both 700 MHz and 2.1 GHz⁷⁸ would be better off under ComReg's proposals.

(b) Retrospective pricing

4.113 At the outset, ComReg agrees with DotEcon that retrospective fees would necessarily result in fees above those implied by the MBSA2 minimum prices. This is a method for setting long-term market value-based fees which contradicts Three's view that the market value is not relevant to short-term licence fees. By suggesting this approach, Three is effectively supporting fees based on market value and without any adjustment to account for the short-term duration. Fees set using such an approach would result in fees at a level at least equal to the minimum prices set for the MBSA2 and potentially at a higher level if there is competition for these lot categories within the auction⁷⁹.

4.114 Prior to assessing Three's specific proposal, it is first useful to assess the retrospective pricing options more generally (as previously suggested by Eir) because it overlaps with Three's retrospective pricing proposal. DotEcon notes that there are two main concerns with using retrospective pricing as an approach to setting fees.

4.115 **First**, DotEcon's primary concern is that the process for calculating retrospective pricing cannot be devised prior to knowing the outcome of Three's substantive appeal. Even with a 3-month extension, it is not known when the MBSA2 auction itself will be run. Even if a judgment is delivered on Three's substantive appeal by the High Court within the next few months, the implications of that judgment cannot be known and whether changes to the MBSA2 process might be required. This creates a significant problem in that any process for calculating retrospective payments that ComReg may set out now (in advance of that judgment) - may become inappropriate.

4.116 ComReg agrees with DotEcon that a process for determining retrospective fees cannot be determined in advance of the substantive judgment. Retrospective fees inevitably involve setting out a procedure for how such fees would be estimated following an award and this includes knowledge of the particular format and its design features. Any process that ComReg could set out at this juncture (based on a combinatorial clock auction ("CCA") and spectrum competition caps) would be

⁷⁸ €823,000 per 2 x 5 MHz block.

⁷⁹ ComReg also notes that Three does not suggest any sort of discount on these retrospective fees to account for the short-term nature of the licences, which is at best contradictory to its assertion that the discount on market value proposed by ComReg is inadequate.

subject to revision under alternative formats and process.

- 4.117 **Second**, the extent to which bidders face payments for short-term licences which are determined by how they bid within the eventual MBSA2 auction may change their bidding incentives during the auction.
- 4.118 Three comments that operators are not going to alter their bidding for 20-year licences to make a saving on a 3-month one, DotEcon notes that this observation is over-simplistic because it fails to consider the specifics of the incentives provided by the auction where there are incentives to compete for additional lots. If a retrospective price for short-run spectrum derived from the auction outcome was added, it would create a situation where there is a price penalty from competing for additional lots. Therefore, it is clear that there would be a competition moderating incentive created, when absent retrospective pricing such an incentive is largely absent.
- 4.119 ComReg agrees with DotEcon and notes that retrospective pricing could lead to distorted bidding in the auction because all MNOs would have strong incentives to bid with the aim of keeping prices low for the relevant bands. This could reduce competition within MBSA2 and potentially result in an inefficient outcome. The CCA was chosen, among other reasons, to allow bidders to compete for additional spectrum without fear that it will increase the price of a package it may eventually end up winning. The use of retrospective pricing would run counter to the incentives that are provided by the CCA and potentially penalise bidders that competed for additional lots. Such an impact may be small. However, it cannot be ruled out that this effect would be enough to reduce competition during the award, particularly by a bidder who was already marginal in terms of competing for such lots. As noted previously, while avoiding consumer disruption is of primary importance, any proposed measures should, in as far possible, also avoid creating distortions that would compromise the MBSA2 award.

Three's retrospective proposal

- 4.120 Three contends that the short-term licences will exist entirely within the originally planned duration of the MBSA2 licences and any MNO who obtains a short-term licence should be able to offset this against the licence fee for any spectrum won in the award.
- 4.121 DotEcon notes that Three's proposals for a retrospective price are not fully articulated but might be read as suggesting that the MBSA2 licences could be left as commencing as currently planned. However, DotEcon notes that there is a major flaw in this approach, as when the auction is run, then the MNOs will have already enjoyed the benefit of short-term licences. Even if the award allocated licences that are pre-dated to prior to the award, this does not affect their valuation, as this

depends on the future utility of the licence once awarded. Therefore, such a scheme would effectively allow short-term use of spectrum for free. DotEcon notes that if this is the approach that Three had in mind, it is untenable.

- 4.122 ComReg agrees with DotEcon and notes that a scenario where short rights would effectively be assigned for free is clearly not appropriate for reasons set out above. Further, the concerns around the process for calculating retrospective pricing prior to knowing the outcome of Three's substantive appeal remain under this proposal.
- 4.123 The MBSA2 award also concerns participants other than MNOs and it would be inappropriate to have higher reserve prices which would apply to such participants in order to facilitate short-term rights of use for MNOs. Such an approach assumes that MNOs would become winning bidders in MBSA2 for the same rights of use assigned in the short-term assignment. Any MNO may not become a winning bidder or may win less rights of use than that assigned on a short-term basis;
- 4.124 In light of the above, ComReg remains of the view that retrospective pricing would not be an appropriate approach to setting fees for short-term licences.

(c) Benchmarking

- 4.125 Benchmarking is a means of estimating the value of spectrum using observed prices in similar concluded auctions - and adjusting to take account of Irish population and income levels (i.e., purchasing power differences). In Document 22/72, ComReg was of the preliminary view that market-based fees for the 700 MHz and 2.1 GHz bands are best determined by using benchmarking.
- 4.126 ComReg is setting fees by reference to an estimate of "market value", reflecting the estimated opportunity cost of the spectrum⁸⁰. Using opportunity cost as the basis for setting fees establishes what could be considered a "fair" price for users to pay for the use of a scarce and valuable public resource. Setting market-based fees by reference to opportunity costs (instead of what operators could earn) are best aligned with ComReg's objectives, where such fees are objectively justified, transparent, non-discriminatory, and proportionate in relation to their intended purpose. Such an approach best aligns with Mr. Justice McDonald's finding in this judgement that fees commensurate with the commercial value of the radio spectrum would appear to resolve State aid concerns.
- 4.127 Four issues are raised by respondents in relation to the benchmarking approach

⁸⁰ Benchmarking provides the price of spectrum licences paid at auction and an estimate of the market value of spectrum. In the case where the strongest losing bid determines the price paid by the winners, the market value reflects the opportunity cost of the spectrum. In competitive auctions, regardless of their format, prices for winners are typically determined by what prices the losers are prepared to pay and so reflect opportunity cost for the specific licences awarded in the benchmark.

recommended by DotEcon:

- I. the exclusion of reference points where spectrum rights of use were sold at the reserve price;
- II. the use of the arithmetic mean rather than the geometric mean when determining relevant benchmarks;
- III. the inclusion of benchmarks that are claimed by respondents to be in some way inconsistent with prevailing Irish market conditions; and
- IV. benchmarks have not been adjusted to account for differences in payment schedules.

I. Lots sold at reserve price

4.128 In relation to I, DotEcon provides several reasons as to why excluding lots sold at reserve from the benchmarking estimate is appropriate:

- lots selling at reserve is often caused by regulators setting overly tight caps or reserving spectrum inefficiently, preventing competition for spectrum. The prices for these lots are therefore established by the auctioneer, rather than on the basis of valuations revealed through a competitive bidding process, and do not necessarily reflect the opportunity cost of the spectrum or the clearing price if there had been competition;
- the comparators should include only those awards where a price has been established by competition. In cases where lots were sold at reserve price, we are observing the consequence of the administrative decision to set the reserve price at that level;
- given that EU regulators typically set reserve prices by benchmarking comparable awards within Europe, there is a danger of circularity if benchmarking exercises then include reserve prices set by other benchmarking exercises; and
- the exclusion of lots sold at reserve price is simply an improvement on the approach to avoiding prices that have been set administratively (rather than through bidding in an auction) that has been applied in DotEcon's previous benchmarking exercises for ComReg.

4.129 Therefore, DotEcon notes that there is nothing in the treatment of uncompetitive awards to suggest that the price is being set significantly too high.

4.130 ComReg agrees with DotEcon and notes that the exclusion of data points sold at reserve is not novel; indeed such an approach has been employed by DotEcon for

at least 10 years without complaint and in awards undertaken by ComReg in which all MNOs took part and were winning bidders. For example:

- in MBSA2, DotEcon noted that it used “*competitive auctions – a subsample which includes only observations from awards which use an auction mechanism and in which the price of at least one licence exceeds its reserve price*”⁸¹;
- in MBSA1, DotEcon noted that “*For instance, we do not consider auctions where licences were awarded at reserve prices to be fully reflective of relative competitive market value.*”⁸²; and
- in the 3.6 GHz award, DotEcon noted that “*We only consider auctions in which the prices were determined by bidders, and thus only those in which spectrum was allocated above reserve prices.*”⁸³

4.131 Excluding lots sold at reserve is an approach that had been in place prior to the first benchmarking report in MBSA2, to which all three respondents have been privy.

4.132 ComReg agrees with this approach and notes that using benchmarks that use reserve prices (as opposed to achieved auction prices) would not be particularly useful as national regulators may have a variety of considerations when setting minimum prices. National regulators also use different techniques to arrive at minimum prices (i.e., not all are set by reference to market value). Hence minimum prices will not necessarily bear any correlation to the benchmark metrics (population, auction competitiveness, etc.) unlike auction prices, which ultimately reflect the valuations of losing bidders which is an important reference point to opportunity cost pricing.

II. Arithmetic and geometric mean

4.133 In relation to II, DotEcon notes that the geometric mean is a more suitable metric for setting minimum prices in the context of an auction because it means that DotEcon can be more confident that minimum prices would be strictly below the estimated market value and that clearing prices would ultimately be set by bidding in the auction (that is above minimum prices). Alternatively, the arithmetic mean is more appropriate in the context of determining short-term licence fees because it is more

⁸¹ See p2 of [Document 19/59b](#), “*DotEcon - Proposed Award process for rights of use in the 700 MHz, 2.1 GHz, 2.3 GHz, and 2.6 GHz bands: Benchmarking and minimum prices*”, published 18 June 2019, available at www.comreg.ie/publications.

⁸² See p50 of [Document 11/59](#), “*DotEcon Report - Award of 800 MHz, 900 MHz and 1800 MHz spectrum - Further update report on benchmarking*”, published 24 August 2011, available at www.comreg.ie/publications.

⁸³ See p10 of [Document 15/72](#), “*DotEcon Report – 3.6 GHz band reserve prices*”, published 10 July 2015, available at www.comreg.ie/publications.

appropriate to seek a best estimate of market value, which is better achieved by using the arithmetic mean than the geometric mean.

- 4.134 ComReg agrees with DotEcon, the geometric mean was used to assess minimum prices because it is more conservative. However, in the current case, and because the aim is to estimate market prices more closely, the arithmetic mean is the more appropriate metric. This approach gives equal weight to all observations, rather than reduced weight to higher observations. ComReg also notes that the use of the arithmetic mean by DotEcon is consistent with ComReg's previous approach to setting fees administratively outside a market mechanism. In the mobile satellite services/complementary ground component, DotEcon used benchmarking and the arithmetic mean to estimate the value of the 2.1 GHz Band.⁸⁴
- 4.135 In any event, as noted by DotEcon, Three's concern seems to be that fees based on the arithmetic mean would be excessive. However, for the reasons set out in this Chapter, ComReg does not consider the fees proposed for short-term licences to be excessive.

III. Benchmarks claimed to be inconsistent with prevailing Irish market conditions

- 4.136 In relation to III, DotEcon notes the following in relation to the benchmarks referred to by Eir:
- the prices achieved in spectrum awards are affected by a wide range of factors that will differ across countries and awards, including (but not limited to) the number of MNOs or bidders and the quantity of spectrum available (both within the band in question as well as potential substitutes);
 - no individual observation is going to be a perfect match for the state of play in Ireland. Rather we rely on a range of broadly comparable countries and then average, having corrected for income effects using a PPP exchange rate;
 - selecting certain parameters as the basis for excluding specific observations would risk distorting the results of the benchmarking. While Eir seems to have selected awards with higher-than-average prices to exclude, we note that a similar exercise could equally be performed, for example, to find reasons for excluding observations where prices are lower than average; and
 - Eir's proposal also appears to assume that only three parties (i.e., the MNOs) would be interested in the 700 MHz band in Ireland, or indeed elsewhere,

⁸⁴ [Document 17/19a](#), "DotEcon Report- Pricing of Satellite Complementary Ground Component", published 20 March 2017, available at www.comreg.ie.

and that spectrum prices will be moderated by weak competition for spectrum where there are fewer MNO's. It would be inappropriate to remove observations from the benchmarking based on an assumption over the number of parties interested in long-term rights when we do not know what that will be.

4.137 Similarly, DotEcon does not agree with Three that an adjustment to prices to account for the reduction in supply is appropriate and it notes that it is not a realistic or particularly helpful approach. Such set-aside measures remove both supply and demand from an auction. It is impossible to know precisely how any individual factor will have affected the prices achieved in an award and what adjustment should be applied in response.

4.138 ComReg agrees with DotEcon and notes that the benchmarking aims to pool information from multiple sources to give a reasonable estimate of the market average. It is always the case that some countries will have higher or lower prices and selecting benchmarks that increase the price is self-serving and risks distorting the benchmarking process. Clearly, if there are prices that are excessive relative to other benchmarks, these should be excluded, however DotEcon already has an approach for excluding outliers and any excessively high prices would be picked up by that approach⁸⁵ (not an ad-hoc approach suggested by Eir and Three).

IV, Differences in payment schedules

4.139 In relation to IV and the view that DotEcon has not adjusted its benchmark for differences in payment schedules, DotEcon notes this appears to be a simple misunderstanding. For the avoidance of doubt, when establishing price points for the benchmarking, adjustments for payments that can be made in instalments are made whenever the relevant information is available. A licence fee is calculated as the net present value of the discounted stream of payments associated with that licence.

4.140 ComReg concurs with the clarification provided by DotEcon and notes that for each benchmark, DotEcon has calculated the discounted present value of the stream of fees for the licence which includes both upfront fees and any further instalments and annual licence fees. Such an approach is appropriate because all such payments form part of the market value, and the weighted average cost of capital ("WACC") is used to reflect the time value of money in providing for that payment schedule. This is no different to the approach used in MBSA2 where 60% of the minimum price is spread over its duration and the WACC is used to reflect the time value of money. Similarly, in this case, ComReg notes that the 20-year prices are annualised using a

⁸⁵ An observation is considered an outlier if the value:

- lies more than three standard deviations away from the sample arithmetic mean; and/or
- lies beyond the outer fence (the outer fence is defined as three times the interquartile range from the first and third quartiles respectively) from the median.

real discount rate of 3.36% to give annual fees as set out below.

4.141 Regarding the two examples (Italy and Belgium) highlighted by Eir, DotEcon notes the following.

- For the Italian award, the timing of payments for 700 MHz licences was incorrectly recorded in DotEcon's award database. This has now been corrected, and the revised corresponding price point is 0.747 €/MHz/Pop (previously 0.852 €/MHz/Pop).
- For the Belgian award, winning bidders were given the option of paying upfront or in instalments, assuming all winners chose to pay in instalments rather than upfront, causes the Belgian 700 MHz benchmark falls from 0.572 to 0.510 €/MHz/pop (roughly a 10% change) and the 2.1 GHz benchmark to fall from 0.421 to 0.368 €/MHz/pop (roughly a 12% change).

4.142 Re-running the benchmarking using the revised data (corrected Italian data and assumed payment in instalments in Belgium) has a small impact on the overall results, with the mean (for competitive European awards in the last five years) falling from €0.518 to €0.499 €/MHz/pop for the 700 MHz band, and from €0.273 to €0.263 €/MHz/pop for the 2.1 GHz band. DotEcon advises that these changes are not sufficiently large to suggest that the fees proposed by ComReg (which are still below these benchmarks) are too high and need to be adjusted accordingly.

4.143 ComReg agrees with DotEcon and notes that the small changes to the benchmark do not warrant a change in the proposed prices. In particular, the previous benchmarks of €0.518 and €0.273 per MHz per capita (before the 10% discount was applied) remain appropriate because they correspond to the minimum price in MBSA2 (adjusted for inflation), in any case, which has already been estimated on a conservative basis and was widely consulted upon. Indeed, ComReg was ready to commence the Main Stage (i.e., Auction) of the award prior to the stay being granted, indicating that ComReg proposed minimum prices were below the market value. In any event, the benchmark used for the proposed fees (€0.466 and €0.246 per MHz per capita) remain below any adjustments to the 20-year benchmark.

Conclusion on appropriate approach to estimating market value

4.144 In light of the above, ComReg is of the view that the benchmarking approach proposed by DotEcon is appropriate to estimate the market value of the spectrum.

4.3.7 Long term investment value and potential short-term discount

4.145 All three MNOs claim that ComReg has ignored the fact that the proposed short-term licences do not allow, in their view, for long-term investments and this reduces the value of the spectrum. Yet, such concerns are explicitly acknowledged and provided

for by both ComReg and DotEcon so that cannot be the case. At the very outset of Section 4 (Pricing) of its report, DotEcon notes that these benchmarked prices are for long-term licences, and so some reduction to the price estimate may be relevant to account for the short-term nature of the short-term licences. Similarly, ComReg specifically considers the potential adjustment for the short-term nature of licences in Section 5.4.2 of Document 22/72.

- 4.146 DotEcon broadly agrees that incentives for significant new infrastructure investment would be suppressed if spectrum bands critical for deployment are only available on a temporary basis. However, DotEcon notes that operators did not at all engage with the countervailing effects on spectrum valuation set out in its first report. DotEcon remains of the view that there are such effects on valuation from spectrum only being available for short periods and that this arises because of the oligopolistic nature of competition in the sector. DotEcon remains of the view that there are conflicting effects on valuation from spectrum only being available for short periods arising because of the oligopolistic nature of competition in the sector.
- 4.147 ComReg agrees with DotEcon and particularly notes the absence of engagement by respondents on the countervailing effects outlined by both DotEcon (Section 4.4 of Document 22/72a) and ComReg (Paragraph 5.81 of Document 22/72). It is not sufficient for MNOs to make claims regarding long-term investments but not at all consider whether there are some aspects of the short-term licence that could mitigate this impact or alternatively cause the valuation for those rights of use to increase.
- 4.148 ComReg's proposed approach is that fees for a 3-month period are **pro-rated** from an estimate of the value of a 20-year licence (provided through benchmarking) and then adjusted as appropriate for the short-term duration. The reason long-term benchmarks are used is because there are no benchmarks available to estimate the value of a short-term licence because spectrum rights of use for important mobile bands are typically assigned for long periods (i.e., 15-20 years)⁸⁶. With that in mind, it is useful to assess whether it is reasonable to apply estimates of long-term market value to short-term licences such that this approach may over- or under-estimate the value of a short-term licence.
- 4.149 In Document 22/72, ComReg agreed with the views of DotEcon that it is possible there could be some reduction in the value of a short-term licence because short-term licences do not provide the long-term investment certainty. However, ComReg also acknowledged that there are several countervailing factors that could limit or override this impact. These are set out in Paragraph 5.81 of Document 22/72, and

⁸⁶ The only other potential methods available to ComReg to estimate the value of a short-term licence are fees applied to existing or previous interim licences of a short period. These may be appropriate but the benchmarking may provide an indication of whether such fees are too low or excessive. See ComReg's final position.

respondents have commented on these aspects. In particular:

- while long-term investment certainty is not provided, the large costs associated with 5G investments in the 700 MHz Band and other bands, are also delayed for the duration of the short-term licence. This means that the large costs of investment which need to be made in the early part of the long-term licence do not need to be made in a short-term licence; and
- MNOs could benefit if the competition associated with the long-term investment is deferred for all operators by delaying the award of long-term rights. The reduction in competition created by only short-term usage rights being obtainable could even boost the value of spectrum in the short-term relative to long-term rights of use.

4.150 Furthermore, the short period immediately following a long-term investment in a new service or technology (such as 5G in 700 MHz Band) would not contain any significant returns either and operators would similarly be focussed on existing services. As noted by DotEcon, even if an operator won long-term spectrum rights of use and made new investments associated with that spectrum, the benefits of that investment would not materialise immediately. The initial benefits of a long-term licence would, in any case, be associated with a 'business as usual' scenario where existing services are maintained and improved with such spectrum, much as with a short-term usage right. The MNO's themselves have provided evidence, that each has continued to make *business as usual* investments using the 700 MHz and 2.1 GHz bands, particularly regarding the rollout of 4G services in the 700 MHz Band. (See Section 2.1.3 and 2.1.4). As noted by DotEcon, there is significant benefit to short-term spectrum licences deployed for 'business as usual' with existing network infrastructure. Indeed, the MNOs implicitly acknowledge this situation when agreeing with ComReg that short-term licensing is necessary to prevent consumer disruption.

4.151 Vodafone agrees that the value in a short-term licence arises from its business-as-usual value noting that "*...its value is instead the value received from maintaining levels of quality of service on existing 4G services*". The main difference between the duration of the short-term rights of use at issue and the short period at the beginning of the long-term rights of use is that the investment (and costs of same) and the additional competition for 5G services is only associated with the latter. In both cases, the value of the spectrum derives from the ability of operators to provide 'business as usual' services.

4.152 In light of the above, to ComReg notes that fees for a 3-month period **pro-rated** from an estimate of the value of a 20-year licence would be appropriate to estimate short-term fees.

Stream of benefits and short-term discount

- 4.153 While the use of an estimate of the value of a 20-year licence would be appropriate to estimate short-term fees, a second consideration is whether the annual stream of benefits from a long-term licence is the same for each year of the licence (i.e., whether the value of the spectrum may be worth more or less in the earlier part of the licence).
- 4.154 In Document 22/72, ComReg observed that the stream of benefits associated with a long-term licence was unlikely to be linear across time. This means that the early part of a long-term licence may have a somewhat lower valuation compared to the latter part. Furthermore, given the exceptional circumstances surrounding this assignment, ComReg agreed with DotEcon that some prudence was apposite given the uncertainties involved and as such a conservative approach should be taken to account for the short-term nature of this assignment relative to long-term rights of use. This was reflected through a proposed 10% discount in the spectrum fees charged over a short duration, based on an assumed profitability growth of 1% per year.
- 4.155 Three argues that the 10% adjustment proposed by ComReg is inadequate and advocates that the assumed annual profitability growth rate should be approximately doubled to 8%⁸⁷. DotEcon observes that Three's suggestion implies that at the end of a licence, profitability will be approaching five times greater than at the start of the licence (in real terms). DotEcon rejected such possibilities as implausible in its first report. Yet Three has offered no evidence to justify ComReg revising its views.
- 4.156 Nevertheless, DotEcon has checked how the three MNOs treat the cost of acquiring spectrum licences within their company accounts. DotEcon notes that these costs are spread over the life of the licence using straight-line depreciation which assumes equal cashflow benefit from the licence in each year of its life. This is equivalent to a 0% growth of profitability and supports the applying of no discount at all.
- 4.157 ComReg agrees with DotEcon and notes that its assessment of the MNO's company accounts provides strong evidence that a discount, if any discount is to be applied at all, should be no more than 10%. Furthermore, there are no reasons to think that an assumed profitability growth rate of 8% (corresponding to a 54% discount) is in any way reasonable. Given that the three MNOs require these rights of use for 'business as usual' service continuity, and the loss of those rights of use would likely result in significant disruption, it is unlikely that MNOs would attach such a low value to the first year of a 20-year licence.
- 4.158 As DotEcon says, if Three was correct that the incremental profitability benefit of

⁸⁷ The assumed profitability growth rate used by ComReg was just over 1% and not 4%. Therefore, Three's proposals here represent an eightfold increase.

acquiring a spectrum licence was so heavily loaded toward the tail end of the licence, then a straight-line amortisation schedule as used by Three itself would be entirely inappropriate. Three's amortisation schedule makes a good case for finding that no discount is required at all. In that regard, DotEcon notes that, it is better to interpret the "discount" being applied by ComReg to derive a fee for short-term interim access as a precautionary measure given uncertainties around the value of short-term spectrum, rather than expression of a firm view that the market value of short-term spectrum access is materially lower than implied by simple straight-line amortisation of the market value of 20-year licences.

- 4.159 ComReg agrees with DotEcon and is of the view that while the stream of benefits may still vary to some degree over the duration of the licence (if at all), it is highly unlikely to be set at the levels referred to by Three. If MNOs had significantly more profitability growth later in the licence (as claimed by Three) this ought to be reflected through a different amortisation schedule which it is not.
- 4.160 Given the uncertainties with valuing a short-term licence more generally as discussed above, and in an effort to ensure fees do not discourage take up of the spectrum, ComReg considers it apt to assume **a precautionary approach** by retaining this discount. ComReg is of the view that, on balance, it is best to take a precautionary approach and **retain the 10% discount** in this instance.

4.3.8 Other issues

- 4.161 In relation to mobile satellite services, and Three's view that this considers longer-term licences, ComReg notes that it provided this as an example of how it responded to a similar exceptional circumstance where it had to estimate spectrum fees without the use of a market mechanism because of circumstances outside its control. ComReg rejected the option that only administrative costs should apply because of arguments about the opportunity cost of the spectrum being zero and also used benchmarking (including the use of an arithmetic mean) to determine an appropriate price.
- 4.162 Therefore, ComReg adopts a consistent regulatory approach in both cases.
- 4.163 In relation to Three's clarification whereby it submitted to the High Court that fees could be charged using the reserve price, ComReg notes that it remains a fact that Three suggested the reserve price as a basis for setting fees in Court proceedings, while subsequently stating, in response to Document 22/63, that it would not be appropriate to include a component of same in the short-term licences.

4.4 ComReg's final position on spectrum fees

4.164 Having considered the views of respondents and those of DotEcon, ComReg's final position is as follows:

- fees should be set based on an estimate of market value as this is best aligned with the objective of ensuring the optimal use of the radio spectrum;
- benchmarking (with adjustments to account for differences in licence duration, currency, inflation, and population) is the most appropriate approach for estimating the market value of the 700 MHz and 2.1 GHz Bands; and
- a precautionary discount of 10% off the proposed benchmarks (which are the same as those used in MBSA for minimum prices (adjusted for inflation)) is appropriate to account for the short-term nature of the licence.

4.165 The benchmarks are converted into the proposed spectrum fees for a 3-month and set out in Table 5 below.

Table 5: Final fees for short-term licences

	700 MHz	2.1 GHz
Price per 2 × 5 MHz block per 3-month period⁸⁸	€401,000	€212,000

4.166 ComReg has proposed a set of fees that are objectively justified, transparent, non-discriminatory, and proportionate in relation to their intended purpose and best ensure the optimal use of the spectrum. The fees proposed by ComReg are unlikely to be excessive (as alleged by Three) or punitive (as alleged by Eir and Vodafone) or charged in a way that discourages take-up (as alleged by Vodafone and Three) for the following reasons:

- the proposed 2.1 GHz fees (including the fees currently being paid by Three for its interim 2.1 GHz licences) are four times below the existing 2.1 GHz fees (including the current interim fees being paid by Three).

⁸⁸ Fees have been rounded to nearest thousand.

- the 700 MHz fees are 20% below the equivalent fees that applied for substitutable interim 900 MHz rights of use in MBSA1⁸⁹ which was held a decade ago in 2012⁹⁰;
- substitutable 800/900 MHz rights assigned in MBSA1 are valued at 90% more than 700 MHz fees for each 3-month period;
- the fees proposed by ComReg are in some cases equal or below the fees that would arise from some approaches proposed by the MNOs themselves;
- fees for the 700 MHz and 2.1 GHz bands are set at the minimum price level that would be paid on a pro-rata basis under the MBSA2 auction; and
- fees for 700 MHz and 2.1 GHz include a discount to account for the short-term duration of the licence.

4.5 Fee comparison of the different approaches considered

- 4.167 ComReg has received a variety of different and sometimes conflicting proposals from operators over the course of this consultation process (i.e., in the MNO submissions to Document 22/63 and Document 22/72).
- 4.168 Table 6 and Section 6 of the DotEcon report summarises the various fee approaches from Operators and ComReg and the fees that would arise from same.
- 4.169 The use of existing fees (in relation to 2.1 GHz band) and previous interim fees would result in the highest charges and while there is precedent for implementing such fees, ComReg is of the view that such fees could impact the extent to which certain services which are important to society during the Temporary Situation are provided.
- 4.170 While each of the MNOs preferred nominal or administrative cost-based fees, each of the MNOs did, at different points in the consultation process suggested an approach that would result in fees either equal to or above the fees proposed by ComReg. The remaining approaches are all significantly below market value and inappropriate for the reasons set out in Section 4.3.7 above.

⁸⁹ The MBSA1 award was held ten years ago in 2012. The results are available in [Document 12/123](#), “*Information Notice – Results of the Multi-Band Spectrum Award*”, published 15 November 2012, available at www.comreg.ie/publications.

⁹⁰ Fee for 2 × 7.2 MHz in Document 11/29 was €2.57 million or €1.78 million for 2 × 5 MHz. Updated for inflation this amounts to €2.1 million or €520,000 per 3-month period.

Table 6: 3-month fees for 2 × 5 MHz in 700 MHz and 2.1 GHz Bands

Approach	Suggested by	Where	700 MHz	2.1 GHz
Existing Charges	Vodafone ⁹¹	Response to Document 22/72	€100	€823,000
Retrospective	Eir ⁹² & Three ⁹³	Response to Documents 22/63 and 22/72	>= €401,000	€212,000
Market Value Estimate	ComReg	Document 22/72	€401,000	€212,000
MBSA SUFs	Three ⁹⁴	Response to Document 22/63	€250,000	€131,000
ComReg 8% profitability	Three ⁹⁵	Response to Document 22/72	€204,000	€107,000
ComReg [X [X] + MBSA2	Vodafone ⁹⁶	Response to Document 22/72	[X [X] X]	€213,000

⁹¹ See Annex 6 of this document, Vodafone response to Document 22/72, “It is useful to note also that there is precedent for continuing a charging regime during a transition process, such as that which applied with WiMax licences and the allocation of 3.6GHz spectrum.”

⁹² See Annex 4, p138 of Document 22/72 - Eir’s response to Document 22/63, “All temporary or short-term rights should be provisioned on the administrative fee basis of the Temporary COVID Licensing framework. Once the long-term award process is concluded all fees should be effective from 15 October 2022 and backdated as appropriate”.

⁹³ See Annex 6 of this document, Three’s response to Document 22/72, “We note that Eir has suggested retrospective fees in its response, i.e. that once the long-term award process is concluded all fees should be effective from 15 October 2022 and backdated as appropriate. We believe this proposal warrants further consideration”.

⁹⁴ See Annex 4, p146 of Document 22/72, “If ComReg was to seek a proxy for such value, then the only established reference would be the Spectrum Usage Fee that will apply to this spectrum following the award. This has been consulted on by ComReg previously and could be adopted on a pro-rata basis to the duration of the short-term licences to provide a proxy value for a licence fee”

⁹⁵ See Annex 6 of this document, Three’s response to Document 22/72, “In order to replicate this in the linear annual growth table, we estimate that the assumed annual profitability growth rate should be approximately doubled to 8% (and again this is without prejudice to our views as expressed above.”

⁹⁶ See Annex 6 of this document, Vodafone’s response to Document 22/72, “The proposal”. The fee corresponding to this proposal is operator dependent and is based on the number of sites using the 700 MHz band.

Approach	Suggested by	Where	700 MHz	2.1 GHz
Existing SUFs	Vodafone	Response to Document 22/63	€100	€204,000
ComReg 90%	Eir	Response to Document 22/72	€44,600	€23,500

Chapter 5

5 Decision

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

DECISION

1 DEFINITIONS AND INTERPRETATION

1.1 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/EC⁹⁷;

"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) 2016/687⁹⁸;

"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;

"ECS" means electronic communications service which has the meaning assigned to it in the Framework Regulations.

⁹⁷ 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 as amended by European Commission Implementing Decisions (EU) 2020/67 of 6 May 2020.

⁹⁸ 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.

“Short-Term ECS Licence” means a licence of the type set out in draft form in Schedule 1 to the Short-Term ECS Licence Regulations;

“Short-Term ECS Licence Regulations” means the Wireless Telegraphy (SHORT-TERM ELECTRONIC COMMUNICATIONS SERVICES LICENCES) Regulations, 2022, as set out in draft form in Annex 3 to ComReg Document 22/78;

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

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

“MNO” means one of the three mobile network operators in the State with an existing network in Ireland;

“Relevant Spectrum” means 2.1 GHz Band Blocks and 700 MHz Duplex Blocks.

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

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

2 DECISION-MAKING CONSIDERATIONS

2.1 In arriving at its decisions in this document, ComReg:

- (i) 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. 20/122 (insofar as it is relevant to the present decisions and, in particular, concerning the spectrum fees and technical licence conditions for the Relevant Spectrum);
 - b. 20/63;
 - c. 20/72; and
 - d. 20/78;
- (ii) had regard to 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).
- (iii) had regard to the powers, functions, objectives and duties of ComReg, including, without limitation those under and by virtue of:

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

as set out in the various chapters of this Document 22/78 and its supporting annexes.

3 DECISIONS

3.1 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 Short-Term ECS Licence Regulations, to make those regulations under section 6 of the Wireless Telegraphy Act 1926, prescribing relevant matters in relation to Short-Term ECS Licences, including prescribing the form of the licences concerned, their duration, the relevant fee(s) to be paid, and the conditions and restrictions subject to which they are granted;

700 MHz and 2.1 GHz Bands

- (ii) upon application and payment of the relevant fees for a Short-Term ECS Licence properly being made by an MNO in accordance with the terms of the Short-Term ECS License Regulations:

- a. to consider whether to grant that MNO a Short-Term ECS Licence for spectrum rights in the 700 MHz and/or 2.1 GHz bands having regard to the Short-Term ECS Licence Regulations, as made, and to the material provided by applicants in support of their respective application;
 - b. under section 5 of the Wireless Telegraphy Act 1926, and pursuant to the Short-Term ECS Licence Regulations, to grant a Short-Term ECS Licence(s), to such MNOs for the periods, and subject to the conditions and restrictions (including conditions as to suspension and withdrawal), prescribed in the Short-Term ECS Licence Regulations, including the Schedule to the Short-Term ECS Licences Regulations as currently set out in Annex 3 of Document 22/78;
 - c. to make the duration of a Short-Term ECS Licence up to but no longer than 3 calendar months.
- (iii) upon application properly being made by an MNO to it to renew a Short-Term ECS Licence, having regard to the Short-Term ECS Licence Regulations, the material provided by applicants in support of a renewal, and upon payment of the relevant fee/s being made in accordance with the terms of the Short-Term ECS Licence Regulations, to renew a Short-Term ECS Licence for a further period of up to but no longer than 3 calendar months;
- (iv) that any Short-Term ECS Licence granted or renewed shall expire no later than 1 April 2023.

4 STATUTORY POWERS NOT AFFECTED

- 4.1 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 Next Steps

- 6.1 Document 22/78b published alongside this document contains an Application Form for a Short-Term 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 Environment, Climate and Communications to make the Short-Term ECS Licence Regulations.
- 6.3 Applicants can submit a completed Application Form to ComReg (together with supporting information) to the email address below (and make payment of the applicable fee) as soon as ready. The Application form sets out details regarding payment of licence fees. ComReg will assess, and process applications once the Short-term ECS Licence Regulations are made.
- 6.4 Applicants should send their completed Application Form to:

licensing@comreg.ie

with the subject line: **Short-Term ECS Licence**.

- 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 information⁹⁹.

⁹⁹ ComReg Document 05/24, “*Response to Consultation - Guidelines on the treatment of confidential information*”, published 22 March 2005, available at www.comreg.ie/publications/.

Annex 1: Glossary

Definitions

- A 1.1 The definitions in this glossary shall apply to this document as a whole.
- A 1.2 Where a term in this glossary is defined by reference to a definition in a section or paragraph and an explanation of that term is provided in this glossary, the latter explanation is for convenience only and reference should be made to the appropriate part of the document for the definitive meaning of that term in its appropriate context.
- A 1.3 Any reference to any provision of any legislation shall include any modification re-enactment or extension thereof.
- A 1.4 Terms defined in this consultation paper shall, unless the context otherwise requires or admits, have the meaning set out below:

3.6 GHz Band	The radio frequency spectrum in the range 3400 MHz to 3800 MHz
700 MHz Band	The frequency range 694 MHz – 790 MHz of which services have deployed in the frequency range 703 – 733 MHz paired with 758-788 MHz
700 MHz Duplex	The frequency range 703 – 733 MHz paired with 758 – 788 MHz
700 MHz EC Decision	EC Decision 2016/687/EU
2.1 GHz Band	The frequency ranges 1920-1980 MHz paired with 2110 – 2170 MHz
2.1 GHz EC Decision	EC Decision 2012/688/EU, as amended
2.3 GHz Band	The frequency range 2300 – 2400 MHz

2.6 GHz Band	The frequency range 2500 – 2690 MHz
2002 Act	The Communications Regulation Act 2002 (as amended)
Authorisation Regulations	European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011)
Application Form	ComReg Document 22/78b
Appeal	The appeal of certain aspects of ComReg's Decision on the MBSA2 (ComReg Decision D11/20)
Assignment RIA	Chapter 4 of this document
Auction	The mechanism, consisting of the Main Stage and Assignment Stage, within the Award Process used to determine winning bidders and winning prices in the event that there is insufficient supply in at least one lot category to meet the demand expressed by applicants for lots, overall and/or for specific lots, at the stated reserve prices at the application stage of the Award Process
Award Process	Refers to the award of the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands. See Document 21/40
COVID-19	COVID-19 is an illness that can affect your lungs and airways and is caused by a virus called SARS-CoV-2 (2019-nCoV) coronavirus
COVID-19 Temporary ECS Licensing Framework	Means the spectrum management measures ComReg put in place in response to the COVID-19 Temporary Situation. See https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/covid-19-temporary-spectrum-management-measures/
COVID-19 Temporary ECS Licences	Same meaning as COVID-19 Temporary ECS Licensing Framework

COVID-19 Temporary Spectrum Management Measures	Same meaning as COVID-19 Temporary ECS Licensing Framework
COVID-19 Temporary Situation	Means the temporary impact upon electronic communications networks and services from the extraordinary situation arising from the spread of the disease known as COVID-19
Decision	ComReg Decision D07/22 as contained in Chapter 5 of this Document
Framework Regulations	Directive No. 2002/21/EC (as amended by Regulation (EC) No. 717/2007, Regulation (EC) No. 544/2009 and Directive 2009/140/EC)
Incumbent Licensee	Means parties that currently hold spectrum rights of use for mobile services in the 700 MHz and 2.1 GHz Bands (i.e. Eir, Three and Vodafone)
Licensees	Has the same meaning as Incumbent Licensee
Interim 2.1 GHz Band A Liberalised Use Licence	ComReg's decision, upon receipt of an appropriate application from Three, to grant it interim 2.1 GHz rights of use – comprised of the frequencies in its existing "A Licence" – which would commence on 25 July 2022 and fully expire on 15 October 2022
Interim 'B' 2.1 GHz Band Liberalised Use Licence	ComReg's decision, upon receipt of an appropriate application from Three, to grant it interim 2.1 GHz rights of use – comprised of the frequencies in its existing "B Licence" – which would commence on 2 October 2022 and fully expire on 15 October 2022
Main Stage	As set out in ComReg Document 21/40, the MBSA2 Information Memorandum for the MBSA2, the function of the Main Stage is to determine how many lots each bidder will be awarded in each of

	the available lot categories, and the price to be paid by each winning bidder
MBSA2	ComReg's Multi-Band Spectrum Award project for the long-term assignment of spectrum rights of use in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz, and 2.6 GHz bands Further information is available on ComReg's Spectrum Awards webpage at www.comreg.ie
MBSA2 Decision	Decision D11/20 as published in Document 20/122
MBSA2 Information Memorandum ("IM")	The MBSA2 Information Memorandum ComReg published in Document 21/40 (as may be amended) detailing the processes and procedures ComReg is employing in conducting the MBSA2
MBSA2 Regulations	Means the Wireless Telegraphy (Liberalised use and related Licences in the 700 MHz duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands) Regulations 2021 (S.I. No 264 of 2021)
Phase 2 Application	Has the meaning as set out in the IM
PPP	Purchasing Power Parity
Proposed Framework	ComReg proposals to put in place a short term (up to 6 months) licensing framework for the issue of spectrum rights of use in the 700 MHz and 2.1 GHz bands from 2 October 2022
SAF	Spectrum Access Fee
Short-term Framework	A licensing framework for the issue of spectrum rights of use in the 700 MHz and 2.1 GHz bands from 2 October 2022
Short-term ECS Licences	A licence in the form set out in Schedule 1 of the draft regulations

Stay Application	On 2 June 2022, Three applied to the Commercial Court for a stay on the commencement of the Main Stage of the MBSA2 Auction (the “Stay Application”) pending determination of the Appeal
SUF	Spectrum Usage Fee
Time Slice 1	Refers to the period commencing on a date as may be specified by the Commission and ending on 11 March 2027 for licences in the 2.1 GHz, 2.3 GHz and 2.6 GHz bands as a result of the MBSA2
WACC	Weighted Average Cost of Capital
Wireless Telegraphy Act	The Wireless Telegraphy Acts, 1926 and 1956, the Broadcasting Authority Acts, 1960 to 1971, in so far as they amend those Acts, the Wireless Telegraphy Act 1972, Sections 2, 9, 10, 11, 12, 14, 15, 16, 17 and 19 of the Broadcasting and Wireless Telegraphy Act 1988 and Sections 181 (1) to (7) and (9) and Section 182 of the Broadcasting Act 2009

European and Governmental Bodies, Regulatory and Standardisation Organisations

ComReg	Commission for Communications Regulation
DECC	Department of the Environment, Climate and Communications
EC	European Commission
EU	European Union
ITU-RR	International Telecommunication Union Radio Regulations

Glossary of Technical Terms

3G	Third Generation Mobile System (e.g., UMTS)
ECS	Electronic Communications Service as defined under the Framework Regulations
ECN	Electronic Communications Network as defined under the Framework Regulations
GB	Gigabyte
GHz	Gigahertz (1 000 000 000 Hertz)
Hertz (Hz)	Unit of Frequency
LTE	Long Term Evolution of 3G
MHz	Megahertz (1 000 000 Hertz)
MNO	Mobile Network Operator
MMS	Multimedia Messaging Service
MSS	Mobile Satellite Services
SMS	Short Message Service
UMTS	Universal Mobile Telecommunications System.
WBB	Wireless Broadband

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 Framework and Authorisation Regulations¹⁰⁰, and the Wireless Telegraphy Acts 1926 to 2009¹⁰¹ 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 and Regulation 16 of the Framework Regulations. ComReg is to carry out its functions effectively, and in a manner serving to ensure that the allocation and assignment of radio frequencies is based on objective, transparent, non-discriminatory, and proportionate criteria.
- A 2.3 This annex is intended as a general guide as to ComReg’s role in this area, and not as a definitive or exhaustive legal exposition of that role. Further, this annex restricts itself to consideration of those powers, functions, duties and objectives of ComReg that appear most relevant to the matters at hand and generally excludes those not considered relevant (for example, in relation to postal services, premium rate services or market analysis). For the avoidance of doubt, however, the inclusion of particular material in this annex does not necessarily mean that ComReg considers same to be of specific relevance to the matters at hand.
- 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.

European Electronic Communications Code

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

¹⁰⁰The 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.

¹⁰¹The Wireless Telegraphy Acts 1926 to 1988 and Sections 181 (1) to (7) and (9) and Section 182 of the Broadcasting Act 2009.

which ComReg has regulated electronic communications since 2003. It is important to note that further to Article 125 (“Repeal”) of the EECC, with effect from 21 December 2020, the EECC has replaced the EU Common Regulatory Framework.

A 2.6 With some limited exceptions (see Article 124 of the EECC), Member States had until 21 December 2020 to transpose the EECC into national law¹⁰². The DECC is responsible for the transposition of the EECC and ComReg has assisted the DECC in that regard as appropriate.

A 2.7 ComReg understands that the EECC is unlikely to be transposed into national law until late-2022. However, for the avoidance of doubt, electronic communications providers must continue to comply with their obligations, ComReg will continue to regulate the electronic communications sector under its existing powers, and redress mechanisms for customers will continue unchanged until new legislation is introduced.

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

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 competition¹⁰³;
- contribute to the development of the internal market¹⁰⁴;
- promote the interests of users within the Community¹⁰⁵;

¹⁰² With the exception of Articles 53(2), (3) and (4), and Article 54 (See Article 124).

¹⁰³ Section 12 (1)(a)(i) of the 2002 Act.

¹⁰⁴ Section 12 (1)(a)(ii) of the 2002 Act.

¹⁰⁵ 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 Act¹⁰⁶; 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 Regulations¹⁰⁷ in particular those designed to ensure effective competition¹⁰⁸.

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

A 2.11 Regulation 9(11) of the Authorisation Regulations also provides that ComReg

¹⁰⁶ 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.

¹⁰⁷ 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).

¹⁰⁸ Regulation 16(1)(a) of the Framework Regulations.

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.

Contributing to the Development of the Internal Market

A 2.12 Section 12(2)(b) of the 2002 Act requires ComReg to take all reasonable measures which are aimed at contributing to the development of the internal market, including:

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

A 2.13 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.

Promotion of Interests of Users

A 2.14 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:

A 2.15 ensuring that all users have access to a universal service;

A 2.16 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.
- 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.

Regulatory Principles

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

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

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

Other Obligations under the 2002 Act

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

- seek to ensure that any measures taken by it are proportionate having regard to the objectives set out in section 12 of the 2002 Act;¹⁰⁹
- have regard to international developments with regard to the radio frequency spectrum¹¹⁰; and
- take the utmost account of the desirability that the exercise of its functions aimed at achieving its radio frequency management objectives does not result in discrimination in favour of or against particular types of technology for the provision of ECS.¹¹¹

Policy Directions¹¹²

A 2.19 Section 12(4) of the 2002 Act provides that, in carrying out its functions, ComReg must have appropriate regard to policy statements, published by or on behalf of the Government or a Minister of the Government and notified to the Commission, in relation to the economic and social development of the State. Section 13(1) of the 2002 Act requires ComReg to comply with any policy direction given to ComReg by the Minister for Communications, Energy and Natural Resources (“the Minister”) as he or she considers appropriate, in the interests of the proper and

¹⁰⁹ Section 12(3) of the 2002 Act.

¹¹⁰ Section 12(5) of the 2002 Act.

¹¹¹ Section 12(6) of the 2002 Act.

¹¹² 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.

effective regulation of the electronic communications market, the management of the radio frequency spectrum in the State and the formulation of policy applicable to such proper and effective regulation and management, to be followed by ComReg in the exercise of its functions. Section 10(1)(b) of the 2002 Act also requires ComReg, in managing the radio frequency spectrum, to do so in accordance with a direction of the Minister under section 13 of the 2002 Act, while Section 12(1)(b) requires ComReg to ensure the efficient management and use of the radio frequency spectrum in accordance with a direction under Section 13.

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

Policy Direction No.3 on Broadband Electronic Communication Networks

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

Policy Direction No.4 on Industry Sustainability

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

Policy Direction No.5 on Regulation only where necessary

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

Policy Direction No.6 on Regulatory Impact Assessment

A 2.24 ComReg, before deciding to impose regulatory obligations on undertakings in the market for electronic communications or for the purposes of the management and use of the radio frequency spectrum or for the purposes of the regulation of the postal sector, shall conduct a Regulatory Impact Assessment in accordance with

European and International best practice and otherwise in accordance with measures that may be adopted under the Government's Better Regulation programme.

Policy Direction No.7 on Consistency with other Member States

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

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

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

General Policy Direction No.1 on Competition (2004)

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

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

Other Relevant Obligations under the Framework and Authorisation Regulations

Framework Regulations

Regulation 17

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

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

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

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

- avoid harmful interference;
- protect public health against electromagnetic fields;

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

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

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

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

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

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

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

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

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

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

Authorisation Regulations

Decision to limit rights of use for radio frequencies

A 2.39 Regulation 9(2) of the Authorisation Regulations provides that ComReg may grant individual rights of use for radio frequencies by way of a licence where it considers that one or more of the following criteria are applicable:

- it is necessary to avoid harmful interference;
- it is necessary to ensure technical quality of service;
- it is necessary to safeguard the efficient use of spectrum; or
- it is necessary to fulfil other objectives of general interest as defined by or on behalf of the Government or a Minister of the Government in conformity with EU law.

A 2.40 Regulation 9(10) of the Authorisation Regulations provides that ComReg must not limit the number of rights of use for radio frequencies to be granted except where this is necessary to ensure the efficient use of radio frequencies in accordance with Regulation 11.

A 2.41 Regulation 9(7) also provides that:

- where individual rights of use for radio frequencies are granted for a period of 10 years or more and such rights may not be transferred or leased between undertakings in accordance with Regulation 19 of the Framework

Regulations, ComReg must ensure that criteria set out in Regulation 9(2) apply for the duration of the rights of use, in particular upon a justified request from the holder of the right.

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

Publication of procedures

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

Duration of rights of use for radio frequencies

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

Conditions attached to rights of use for radio frequencies

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

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

- Obligation to provide a service or to use a type of technology for which the rights of use for the frequency has been granted including, where appropriate, coverage and quality requirements.
- Effective and efficient use of frequencies in conformity with the Framework 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 in conformity with Article 51 of the EECC.
- Usage fees in accordance with Regulation 19.
- Any commitments which the undertaking obtaining the usage right has made in the course of a competitive or comparative selection procedure.
- Obligations under relevant international agreements relating to the use of frequencies.
- Obligations specific to an experimental use of radio frequencies.

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

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

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

A 2.48 give due weight to the need to maximise benefits for users and to facilitate the development of competition, and

A 2.49 give all interested parties, including users and consumers, the opportunity to express their views in accordance with Regulation 12 of the Framework Regulations.

- A 2.50 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 2.51 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 2.52 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 2.53 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 2.54 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).

Other Relevant Provisions

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

- A 2.55 Under Section 5(1) of the 1926 Act, ComReg may, subject to that Act, and on payment of the prescribed fees (if any), grant to any person a licence to keep and have possession of apparatus for wireless telegraphy in any specified place in the State.
- A 2.56 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 2.57 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 2.58 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 2.59 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 2.60 Regulation 10(1) of the Authorisation Regulations provides that, notwithstanding section 5 of the Act of 1926 but subject to any regulations made under section 6 of that Act, where ComReg attaches conditions to rights of use for radio frequencies, it may only attach such conditions as are listed in Part B of the Schedule to the Authorisation Regulations.

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

A 2.61 Article 4 of the Competition Directive provides that:

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

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

Annex 3: Draft Licensing Regulations

Final Draft Short-Term ECS Licensing Regulations

Any final version of these regulations, which would be made by ComReg under section 6 of the Wireless Telegraphy Act 1926, is expressly subject to the consent of the Minister for the Environment, Climate and Communications under section 37 of the Communications Regulation Act 2002, as amended.

ComReg may make such editorial changes to the text of any final regulations as it considers necessary and without further consultation, where such changes would not affect the substance of the regulations.

STATUTORY INSTRUMENTS.

S.I. No. of 2022

WIRELESS TELEGRAPHY (SHORT-TERM ELECTRONIC
COMMUNICATIONS SERVICES LICENCES) REGULATIONS 2022

S.I. No. of 2022

WIRELESS TELEGRAPHY (SHORT-TERM ELECTRONIC COMMUNICATIONS SERVICES LICENCES) REGULATIONS 2022

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 (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)) in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. These Regulations may be cited as the Wireless Telegraphy (Short-Term Electronic Communication Services Licences) Regulations 2022.

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;

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

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

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

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

“Existing 2.1 GHz Band Licence” means a licence issued under the Wireless Telegraphy (Third Generation and GSM Mobile Telephony Licence) Regulations, 2002 and 2003, as amended;

“Existing Licensee” means a person holding one, or more, Existing 2.1 GHz Band Licences;

“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);

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

“Liberalised Apparatus” means apparatus for wireless telegraphy as defined in section 2 of the Act of 1926 for terrestrial systems capable of providing Electronic Communications Services in the 2.1 GHz Band and 700 MHz Duplex which comply with the Decision of 2012 and Decision of 2016 respectively;

“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;

“Short-Term Electronic Communications Services Licence” or “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 and in the form set out in Schedule 1, to keep and have possession of Apparatus in a specified place in the State in accordance with and subject to the terms and conditions set out therein;

“Spectrum Block” means either a 2.1 GHz Band Block or a 700 MHz Duplex Block

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

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

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

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

Licences to which these Regulations apply

3. These Regulations apply to Short-Term 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 risks to the provision of the Undertaking’s existing Electronic Communications Services, and the quality of such existing provision, by the Undertaking not having access to and effectively making use of the rights of use of radio frequencies applied for;
- (b) the need to encourage the efficient use and ensure the effective management of the radio frequency spectrum; and

- (c) the Commission's obligations and objectives in relation to competition for the provision of Electronic Communications Networks and Electronic Communications Services.

(3) An Undertaking that 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 or the Authorisation Regulations, and if the Undertaking, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant the Licence concerned to the Undertaking.

(4) A Licence to which these Regulations apply shall be in the form specified in Schedule 1, with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the Authorisation Regulations.

Duration of Licences

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

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

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

(4) Any Licence granted or renewed under these Regulations shall expire no later than 1 April 2023.

Conditions of Licences

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

- (a) ensure that it complies with the conditions in its Licence and with these Regulations;
- (b) ensure that any Apparatus in the 700 MHz Duplex complies with the Decision of 2016 and that any Apparatus in the 2.1 GHz Band complies with the Decision of 2012;
- (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; and
- (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.

Enforcement, Amendment, Suspension and Withdrawal

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

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

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

Licence Fees

8. (1) The fee for a Short-Term Electronic Communications Services Licence, or renewal of a Short-Term Electronic Communications Services Licence, is the sum of the fees for each Spectrum Block in the Licence as set out below:

- (a) For a 700 MHz Duplex Block the fee is €401,000 per 3-month period; and
- (b) For a 2.1 GHz Band Block the fee is €212,000 per 3-month period.

(2) If the duration of one or more Spectrum Block(s) in a Short-Term Electronic Communications Services Licence is reduced at the request of a Licensee, the Licensee may, at the discretion of the Commission, be entitled to a refund of the Licence Fee already paid, on a pro rata daily basis having regard to the reduced duration.

(3) In the case of a Short-Term Electronic Communications Services Licence issued for one or more Spectrum Block(s) with a period of less than 3 months, the Licence Fee shall be the relevant sum as detailed in Regulation 8(1) adjusted on a pro rata daily basis for such period.

(4) For an Existing Licensee holding an Existing 2.1 GHz Band Licence which expires after 15 October 2022, the Commission may grant a Short-Term Electronic Communications Services Licence to such Existing Licensee to allow the use of Liberalised Apparatus in respect of the Existing 2.1 GHz Band Licence, and for which no fee shall apply. The Existing Licensee shall continue to be liable for all other applicable fees relating to its Existing Licence(s).

(5) Any payment to be paid by a Licensee under this Regulation shall be made by way of banker's draft or such other means and on such other terms, if any, as the Commission may decide.

Licensee to satisfy all legal requirements

9. Licences granted pursuant to these Regulations do not grant to the Licensee any right, interest or entitlement other than to keep, have possession of, install, maintain, work and use Apparatus at a specified location or locations in the State.

SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (SHORT-TERM ELECTRONIC COMMUNICATIONS SERVICES LICENCES) REGULATIONS 2022

Short-Term 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 (Short-Term Electronic Communications Services Licences) Regulations 2022 (S.I. No. of 2022) (“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 Licence fee detailed in the Regulations and in accordance with the Regulations.

For the purpose of this Licence, the definitions set out in the Wireless Telegraphy (Short-Term Electronic Communications Services Licences) Regulations 2022 apply.

This Licence shall come into effect on **DD/MM/YYYY** (the “Licence Commencement Date”) and, subject to amendment, 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 blocks

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

Part 2

The Apparatus to which this Licence applies

Authorised Band	Equipment Index Reference	Terrestrial System	Equipment Description	Manufacturer	Model
<i>700 MHz Duplex, 2.1 GHz, as appropriate</i>					

Part 3

Apparatus Location and Details

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

Part 4

Licence Conditions

Section 1: General

Harmful Interference

1. In the event of Harmful Interference, the affected Licensees shall exchange information with a view to resolving the Harmful Interference by mutual consent. Where resolution cannot be agreed between the affected Licensees, the Commission may mediate in accordance with its statutory functions, objectives, and duties.

Section 2: Technical Conditions

Definitions

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

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

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

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

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

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

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

Technical Conditions

2. The 700 MHz Duplex

- (a) Only terrestrial systems compatible with the Decision of 2016 can be worked and used in the 700 MHz Duplex.
- (b) The FDD mode of operation shall be used in the 700 MHz Duplex. The duplex spacing shall be 55 MHz with Terminal Station transmission (FDD uplink) located in the lower frequency band 703 – 733 MHz and Base Station transmission (FDD downlink) located in the upper frequency band 758 –788 MHz.
- (c) The Licensee shall comply with all Memoranda of Understanding (‘MoU’)¹ agreed between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular the Office of Communications (“Ofcom”) in the UK, or its successor, in relation to the 700 MHz Duplex.

Base Stations

- (d) Within a 700 MHz Duplex Block(s) 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.
- (e) Outside of the 700 MHz Duplex Block(s) assigned to the Licensee, the Licensee shall comply with the out-of-block BEM as specified in Section B of the Annex to the Decision of 2016.

Terminal Stations

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

- (f) The maximum mean in-block power limit of 23 dBm for Terminal Stations shall apply².
- (g) The out-of-block technical conditions set out in Table 10 to Table 12 of the Annex to the Decision of 2016 shall apply.

3. The 2.1 GHz Band

- (a) Only terrestrial systems compatible with the Decision of 2012 can be worked and used in the 2.1 GHz Band.
- (b) The duplex mode of operation shall be FDD. The duplex spacing shall be 190 MHz with Terminal Station transmission (FDD uplink) located in the lower frequency band 1 920 – 1 980 MHz and Base Station transmission (FDD downlink) located in the upper frequency band 2 110 – 2 170 MHz.
- (c) The Licensee shall comply with all MoU³ between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular the Office of Communications (“Ofcom”) in the UK, or its successor, in relation to the spectrum in the 2.1 GHz Band.

Base Stations

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

² 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. This value is subject to a tolerance of up to + 2 dB, to take account of operation under extreme environmental conditions and production spread.

³ 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.

Terminal Stations

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

GIVEN under the Official Seal of the Commission for Communications
Regulation,

day of 2022

For and on behalf of the Commission for Communications Regulation

The Minister for the Environment, Climate and Communications (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)), in accordance with section 37 of the Communications Regulation Act, 2002, consents to the making of the foregoing Regulations.

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

day of 2022

Minister for the Environment, Climate and Communications

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

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations prescribe matters in relation to the Short-Term Electronic Communications Services Licences in the 700 MHz Duplex and the 2.1 GHz Band. These Licences address the potential short-term impact upon Electronic Communications Networks and Electronic Communications Services caused by the upcoming expiry of licences in the 2.1 GHz Band and 700 MHz Duplex

Final Draft Amended MBSA2 Licensing Regulations

Any final version of these regulations, which would be made by ComReg under section 6 of the Wireless Telegraphy Act 1926, is expressly subject to the consent of the Minister for the Environment, Climate and Communications under section 37 of the Communications Regulation Act 2002, as amended.

ComReg may make such editorial changes to the text of any final regulations as it considers necessary and without further consultation, where such changes would not affect the substance of the regulations.

STATUTORY INSTRUMENTS.

S.I. No. of 2022

WIRELESS TELEGRAPHY (LIBERALISED USE AND RELATED
LICENCES IN THE 700 MHZ DUPLEX, 2.1 GHZ, 2.3 GHZ AND 2.6 GHZ
BANDS) (AMENDMENT) REGULATIONS 2022

S.I. No. of 2022

WIRELESS TELEGRAPHY (LIBERALISED USE AND RELATED
LICENCES IN THE 700 MHZ DUPLEX, 2.1 GHZ, 2.3 GHZ AND 2.6 GHZ
BANDS) (AMENDMENT) REGULATIONS 2022

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 (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)) in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. These Regulations may be cited as the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) (Amendment) Regulations 2022.

Interpretation

2. (1) In these Regulations:

“Principal Regulations” means the Wireless Telegraphy (Liberalised use and related Licences in the 700 MHz duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands) Regulations 2021 (S.I. No 264 of 2021);

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

Licences to which these Regulations apply

3. These Regulations apply to MBSA2 Liberalised Use Licences.

Amendment of Regulation 2 of Principal Regulations

4. Regulation 2(1) of the Principal Regulations is amended by the substitution of the following definition for the definition of “Time Slice 1”:

“Time Slice 1” means, in relation to 2.1 GHz Band Blocks, 2.3 GHz Band Blocks and 2.6 GHz Band Blocks, such commencement date as may be specified by the Commission and ending on 11 March 2027;”.

Amendment of Regulation 5 of Principal Regulations

5. The Principal Regulations are amended by substituting the following for Regulation 5(1):

“5. (1) The commencement date of a MBSA2 Liberalised Use Licence shall be specified in the Licence and, in respect of spectrum rights of use for:

- (a) 700 MHz Duplex Blocks shall be such date as may be specified by the Commission;*
- (b) 2.1 GHz Band Blocks, 2.3 GHz Band Blocks and 2.6 GHz Band Blocks in Time Slice 1 shall be such date as may be specified by the Commission; and*
- (c) 2.1 GHz Band Blocks, 2.3 GHz Band Blocks and 2.6 GHz Band Blocks in Time Slice 2 shall be 12 March 2027.”.*

GIVEN under the Official Seal of the Commission for Communications
Regulation,

day of 2022

For and on behalf of the Commission for Communications Regulation

The Minister for the Environment, Climate and Communications (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)), in accordance with section 37 of the Communications Regulation Act, 2002, consents to the making of the foregoing Regulations.

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

day of 2022

Minister for the Environment, Climate and Communications

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations prescribe matters in relation to the amendment of the commencement date of MBSA2 Liberalised Use Licences granted in the 2.1 GHz Band under the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) Regulation 2021.

Annex 4: Final ‘short-term assignment’ RIA

Introduction

- A 4.1 Having considered the submissions received to Document 22/63 and 22/72 and other material before it, in Chapter 3 of Document 22/72 and in Chapter 3 of this document, ComReg considered that significant disruption to consumer services could arise when existing rights of use in the 700 MHz and 2.1 GHz Bands expire in October 2022 and observed that short-term rights of use may thus be necessary in respect of these bands.
- A 4.2 These circumstances arise given the prevailing situation that ComReg now faces following the granting of a stay by the High Court (see Section 1.2.4 of this document) which prevented ComReg from commencing the MBSA2 auction to assign long-term spectrum rights in the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands. ComReg planned to commence the MBSA2 auction in July 2022 and it is likely that long-term licences would now have been issued in these bands, thereby negating any requirement for a short-term assignment.
- A 4.3 While this RIA considers whether it is appropriate to make available short-term spectrum rights having regard to ComReg’s statutory framework and associated objectives and the particular facts and exceptional circumstances of the potential short-term assignment, it is important to clarify that, other than protecting end users from potential service disruption, ComReg cannot properly accommodate any of its statutory objectives in the present case.

RIA Framework

- A 4.3 In general terms, a RIA is an analysis of the likely effect of a proposed new regulation or regulatory change, and, indeed, of whether regulation is necessary at all. A RIA should help identify the most effective and least burdensome regulatory option and should seek to establish whether a proposed regulation or regulatory change is likely to achieve the desired objectives, having considered relevant alternatives and the impacts on stakeholders. In conducting a RIA, the aim is to ensure that all proposed measures are appropriate, effective, proportionate and justified.

Structure of a RIA

A 4.4 As set out in ComReg's RIA Guidelines¹¹³, there are five steps in a RIA. These are:

- Step 1: Identify the policy issues and identify the objectives.
- Step 2: Identify and describe the regulatory options.
- Step 3: Determine the impacts on stakeholders.
- Step 4: Determine the impacts on competition.
- Step 5: Assess the impacts and choose the best option.

A 4.5 In the following sections, ComReg identifies the specific policy issues to be addressed and relevant objectives for the proposed short-term assignment (i.e., Step 1 of the RIA process).

A 4.6 The focus of Step 2 is to identify and describe regulatory options, noting that some potential options may not be valid for further assessment in steps 3 and 4.

A 4.7 The focus of Step 3 is to assess the impact of the various regulatory options identified in Step 2, on stakeholders which are identified at the outset of that section.

A 4.8 The focus of Step 4 is to assess the impact on competition and consumers of the various regulatory options available to ComReg. While related, ComReg provides separate assessments on competition and consumers. In that regard, ComReg notes that it has various statutory functions, objectives and duties which are relevant to the issue of competition. See Annex 2 'Legal Framework and Statutory Objectives'.

A 4.9 Of themselves, the RIA Guidelines and the RIA Ministerial Policy Direction provide little guidance on how much weight should be given to the positions and views of each stakeholder group (Step 3), or the impact on competition (Step 4). Accordingly, ComReg has been guided by its statutory objectives which it is obliged to seek to achieve when exercising its functions. ComReg's primary statutory objectives in managing the radio frequency spectrum for ECN/ECS, as outlined in Annex 2, include:

- the promotion of competition;

¹¹³ See [ComReg Document 07/56a](#), "Guidelines on ComReg's approach to Regulatory Impact Assessment", published 10 August 2007, available at www.comreg.ie

- contributing to the development of the internal market; and
- the promotion of the interests of users within the community.

A 4.10 In this document, ComReg has adopted the following structure in relation to Step 3 and Step 4 – the impact on industry stakeholders is considered first, followed by the impact on competition and consumers. This order does not reflect any assessment of the relative importance of these issues but rather reflects a logical progression. In particular, a measure which safeguards and promotes competition should also, in turn, impact positively on consumers. Accordingly, the assessment of the impact on consumers draws substantially upon the assessment carried out in respect of the impact on competition.

Identify the policy issues & the objectives (Step 1)

Policy issues

- A 4.11 As a result of the stay on the implementation of the MBSA2 auction (see Chapter 1) ComReg cannot now make new long term rights of use in the 700 MHz and 2.1 GHz Bands available before the expiry of certain existing rights of use in those bands.
- A 4.12 As set out in Chapter 3 of Document 22/72 and reiterated in Chapter 3 of this document, ComReg determined, among other things, and absent any measures by ComReg, the expiry of existing 700 MHz and 2.1 GHz rights of use in October 2022 could create consumer disruption. Further, there is uncertainty around the commencement of MBSA2 rights of use, and consequently around how long any consumer disruption would last.
- A 4.13 However, ComReg notes the comment expressed by Mr. Justice McDonald on 20 July 2022 that the stay granted by him will likely be in place for no more than a few months. ComReg also notes that the long-term societal benefits will only be ensured through the completion of MBSA2. Therefore, while avoiding consumer disruption is of primary importance here, any proposed measures should, in as far as possible, avoid creating distortions that would compromise the MBSA2 award.
- A 4.14 Considering the above, the primary policy issue for this Assignment RIA is to determine what short-term rights of use in the 700 MHz and 2.1 GHz bands (if any) should be made available to mitigate consumer disruption, without creating distortions that would compromise ComReg's broader objectives in MBSA2. The potential assignment of rights of use in this case are exceptional and short-term in nature.

Objectives

A 4.14 In normal circumstances, ComReg aims to design and carry out any proposed assignment process in accordance with its broader statutory objectives (as outlined in Annex 2) including the promotion of competition in the electronic communications sector.

A 4.15 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 4.16 Insofar as the promotion of competition is concerned, Regulation 16(1)(b) of the Framework Regulations is also relevant and requires ComReg to:

- ensure that elderly users and users with special social needs derive maximum benefit in terms of choice, price and quality;
- ensure that, in the transmission of content, there is no distortion or restriction of competition in the electronic communications sector; and
- A key objective in designing and carrying out this assignment process is to seek to encourage the efficient use and ensure the effective management of the radio frequency spectrum.

A 4.17 That said and given the exceptional situation regarding short-term licensing, ComReg is greatly constrained and thus cannot properly accommodate any objective referred to above save for maintaining consumer services by minimising consumer disruption.

Identify and describe the regulatory options (Step 2)

A 4.18 As noted in ComReg's RIA Guidelines, "*the first option will always be to make no change to the current regulatory policy, and other possible options will then be added. The option of making no policy change will not always be practical but its*

*inclusion serves as a benchmark against which other options can be compared*¹¹⁴. Therefore, **Option 1** is the 'do nothing' option and involves ComReg taking no regulatory action and allowing existing 700 MHz and 2.1 GHz rights of use expire on 1 October 2022 and 15 October 2022 respectively.

A 4.19 To determine other potential options, ComReg notes that there are several issues that typically need to be considered when assigning spectrum rights of use:

- i. Which electronic communications networks/services, using which technologies, are going to be the ones most likely to provide the greatest end-consumer benefits over the proposed duration of the rights being awarded? ("Which technologies");
- ii. Which of all the interested providers of the ECN/ECS (and using potentially different technologies) are going to be the ones most likely to provide the greatest end-consumer benefits over the duration of the rights being awarded and should, therefore, be issued said rights? ("Which providers");
- iii. Determination of the quantum of spectrum rights in each of the proposed bands that should be assigned to each provider. ("What Quantum"); and
- iv. Determination of which part of the band those spectrum rights should be located ("What Position").

A 4.20 To determine the appropriate regulatory options for this RIA, ComReg briefly assesses the policy issues against these licensing aspects.

Which technologies?

A 4.21 Existing rights of use in the 700 MHz¹¹⁵ and 2.1 GHz Bands¹¹⁶ were provided on a liberalised basis in accordance with the principle and requirements of service- and technology-neutrality that would permit the deployment of all technologies and services that comply with the relevant EC/ECC harmonisation decisions for those bands. ComReg is of the view that there is no justification for deviating from this

¹¹⁴ See [ComReg Document 07/56a](#), "Guidelines on ComReg's approach to Regulatory Impact Assessment", published 10 August 2007, available at www.comreg.ie

¹¹⁵ See S.I. 138 of 2022 but noting that ComReg identified in Document 20/27 that the intention of the COVID-19 Temporary ECS licensing framework should not be used for the large-scale rollout of networks that were not previously planned but allowed for some flexibility to install or redeploy equipment and to continue with existing network upgrade plans.

¹¹⁶ Note that existing rights of use in the 2.1 GHz Band were issued to different parties under different frameworks. Vodafone and Three had obtained a liberalised rights of use due to the MBSA2 decision Document 20/122 and S.I. 265 of 2020, while Eir's existing liberalised rights of use were obtained via S.I.138 of 2002.

approach.

- A 4.22 Any assignment decision taken by ComReg that limits short-term rights of use to a particular technology could create scenarios that potential licensees would have to transition out of certain technologies provided under the existing rights of use. This would clearly create consumer disruption to the extent that consumers were using one or more technologies not provided by the short-term assignment. Furthermore, technology or service restrictions risk distorting operators longer term investment plans beyond the duration of any short-term licences.
- A 4.23 Further, if ComReg were to make available short-term liberalised rights of use in the 2.1 GHz band to the existing licensee whose licence expires in October 2022, while Eir's 2.1 GHz band licence restricts it to the technologies it can operate under that licence (i.e. the 3G technology), ComReg observes that this would risk a distortion of competition.
- A 4.24 Therefore, ComReg is of the view that any regulatory option (other than Option 1) should be to make available short-term rights of use on a liberalised basis and to provide a mechanism for Eir to liberalise its existing 2.1 GHz band licence for the duration of the short-term licensing framework.

Which Providers?

- A 4.25 DotEcon recommends that short-term licences are made available only to licensees whose rights of use in the 700 MHz and 2.1 GHz Bands are expiring ('Incumbent Licensees'), because this follows from the service continuity objectives that are necessitated following the judgement of Mr. Justice McDonald in staying the Main Stage of the MBSA2 auction. Removing access to spectrum already being used could negatively impact on operators' ability to continue providing the services already available to consumers.
- A 4.26 ComReg agrees with this approach because making short-term rights of use available to operators other than Incumbent Licensees could result in such operators being assigned some of the rights of use currently assigned to the Incumbent Licensees. Consumers currently benefiting from these rights of use would likely suffer immediate consumer disruption to a greater or lesser extent depending on the nature of assignment. For the avoidance of doubt, non-incumbent users may be more efficient users of the radio spectrum over periods of longer duration such as the 20-year period proposed in the MBSA2. However, the judgment of Mr. Justice McDonald has necessitated a proposed assignment focussed on Incumbent Licensees (i.e., MNO's) so as to avoid any consumer disruption.
- A 4.27 ComReg therefore agrees with the observations made by DotEcon and is of the view that any regulatory option (other than Option 1) should consider making

available short-term rights of use to Incumbent Licensees, as this maintains the provision of existing services.

Quantum of spectrum?

A 4.28 This licensing aspect concerns the quantum of spectrum rights of use made available to each Incumbent Licensee.

A 4.29 DotEcon recommends that to support the continuation of rights of use that could be required for providing existing services during the short-term period, MNOs should have the option to apply for up to the amount of spectrum currently held.

A 4.30 ComReg agrees with this approach as making available a quantum below what is currently assigned to these Licensees risks consumer disruption. This is while noting that operators could have the option to apply for less or none of this spectrum should they be able to maintain services to customers without it by using other techniques such as increasing the number of base stations, splitting sites etc.

A 4.31 In relation to both the 700 MHz Band and the 2.1 GHz Band, there are circumstances where unused blocks are or could become available. For example:

- two 2 x 5 MHz blocks of 2.1 GHz spectrum are currently unused following the expiry of Three's A licence and its decision to take only one block under an Interim 2.1 GHz Band A licence; and
- where one or more MNOs do not apply for a short-term licence for all of the spectrum currently used.

A 4.32 With that in mind, DotEcon advises that there is no basis for providing MNOs with access to more spectrum than the MNOs currently have on the grounds of service continuity and avoiding consumer disruption prior to the award of long-term licences.

A 4.33 ComReg agrees that assigning additional rights of use above existing holdings would go beyond addressing the policy issues considered in this RIA. MNOs should have the option to attain equivalent spectrum rights of use to that currently held as that may be necessary for service continuity. However, there is no justification on consumer disruption grounds for seeking additional rights of use. Indeed, the release of same could distort competition prior to the award of long-term rights in MBSA2.

A 4.34 Therefore, ComReg is of the preliminary view that any regulatory option should only consider spectrum rights of use that are no greater than the existing rights already held. This gives Incumbent Licensees the opportunity to maintain current

holdings for the purposes of service continuity to obviate any potential for consumer disruption.

What frequency position?

- A 4.35 DotEcon recommends that the specific frequency assignment associated with a short-term licence should fall within the frequencies currently licensed to the operator as to do otherwise could affect the position of other parties in this assignment or in bidding for spectrum in the subsequent auction.
- A 4.36 ComReg concurs with DotEcon and notes that there is no obvious rationale for amending the current frequency assignments in the present case. Indeed, if existing rights of use are not granted to MNOs in the same frequency positions as they are currently held, a transition process would be required to allow some, or all MNOs migrate from existing frequencies. Immediate consumer disruption could potentially occur while transitioning to new frequencies (e.g., retuning of frequencies) is being carried out.
- A 4.37 Therefore, ComReg is of the view that any regulatory option should consider rights of use made available to each Incumbent Licensee that would be located within the same frequency position as currently held.

Auction or administrative assignment

- A 4.38 In relation to the MBSA2, ComReg previously assessed the possibility of an administrative assignment of 700 MHz and 2.1 GHz rights of use in its Assignment Process RIA. Therein, amongst other things, ComReg noted that an auction would avoid issues around having to make any ex-ante determinations on each of the licensing aspects where ComReg would not have perfect information.
- A 4.39 However, in this case and as DotEcon notes, the short-term assignment very clearly points to an administrative award of short-term licences. DotEcon notes that if short-term licences are granted only to the MNOs and only in relation to their existing spectrum holdings, there can be no scope for a conflict in demand for any of the available licences, and there is therefore no need for any process to resolve that.
- A 4.40 ComReg agrees that an administrative award is most appropriate for this assignment. The main policy objective here is the avoidance of consumer disruption that would arise over a short period following the expiry of existing rights of use (subject to not creating distortions to MBSA2). Given the above, the various licensing aspects can be addressed in a relatively straightforward manner and there is no need for an auction to determine the most appropriate assignment of short-term rights of use. Indeed an open auction could result in outcomes that could cause short-term consumer disruption if entities other than existing

incumbents proved successful, notwithstanding the likely infeasibility of such an approach.

A 4.41 Therefore, ComReg is of the view that the use of an auction is not appropriate to determine the assignment of short-term rights of use in this instance and the options in this RIA should only consider administrative assignments.

Identifying regulatory options

A 4.42 Considering the preceding discussion, ComReg notes that the following options are available to it.

- **Option 1** is the 'do nothing' option and involves ComReg taking no regulatory action and allowing existing 700 MHz and 2.1 GHz rights of use expire in October.
- **Option 2** is to make available short-term liberalised rights of use in the 700 MHz and 2.1 GHz Bands as follows:
 - only available to each MNO;
 - the available quantum in each band would be no greater than the existing holdings of each MNO;
 - within the same frequency position as is currently held by each MNO; and,
 - in the case of Eir, short term "liberalised" rights of use are made available to it in the 2.1 GHz Band.

Impact on industry stakeholders, competition and consumers (Steps 3 and 4)

A 4.26 The focus of this section of the RIA is to assess the impact of the regulatory options on:

- i. industry stakeholders;
- ii. competition;
- iii. and consumers.

Impact on Industry Stakeholders

A 4.27 Industry stakeholders can be broadly split between MNOs and other operators currently active in the electronic communications sector and potential new entrants that may be considering entry into the electronic communications sector in the State. In that regard, ComReg sets out below the relevant stakeholders and

some high-level observations on their likely requirements:

- MNOs (Vodafone, Three and Eir) who already have existing spectrum holdings in both the 700 MHz and 2.1 GHz Bands;
- MVNOs who provide services using the networks of the MNOs. There are four MVNOs –An Post uses the Vodafone network¹¹⁷ and three use the Three network (Tesco, Virgin and Lyca); and
- Other licenced operators and new entrants.

MNOs

A 4.28 In relation to the MNOs, the extent to which each of the MNOs use both the 700 MHz and 2.1 GHz bands is described in Chapter 3 of Document 22/72 and summarised below:

- Vodafone contends that its use of the 2.1 GHz Band is mainly concentrated in towns and cities and the spectrum accounts for [X █████ X] of Total Network Data Traffic and [X █████ X] of total VoLTE traffic¹¹⁸;
- Vodafone maintains that it has over [X █████ X] of 700 MHz live on the network which carries [X █████ X] of Total Network Data Traffic and [X █████ X] of Total Volte traffic. In Rural/Suburban areas 700 MHz accounts for [X █████ X] of Data Traffic and [X █████ X] of VoLTE traffic¹¹⁹;
- Three states that it has rolled out the 2.1 GHz Band on [X █████ X] sites and currently carries over [X █████ X] of Three's 4G traffic. The function of 2.1 GHz Band is primarily to provide 4G data capacity service in suburban and urban areas, although it is also used to a lesser extent for provision of voice 3G service;
- Three contends that it uses the 700 MHz Band for coverage and capacity for 4G service in rural and suburban areas. Three currently operates 700 MHz spectrum from [X █████ █████ X] which can provide 4G coverage service to over [X █████ X] of the population. Three maintains that

¹¹⁷See also "Sky to enter mobile market in Ireland" "Sky Mobile to Launch in Ireland in 2023 utilising the Vodafone Network" published 4 March 2022, available at www.skygroup.sky,

¹¹⁸ The band is used for LTE at those sites where there is a high traffic demand. This has proved to be highly beneficial for customers with customers typically experiencing [X █████ X] higher data throughput at these sites than they did when 3G was used.

¹¹⁹ Vodafone submits that the higher proportion of usage in rural/suburban areas arises because mid/high band frequencies struggle to meet customer requirements.

almost [✂ [REDACTED] ✂] customers of Three and its MVNOs can benefit from coverage provided by this band. Over [✂ [REDACTED] ✂] of all 4G traffic is carried on the 700 MHz band;

- Eir states that it utilises the 2.1 GHz Band for the provision of enhanced data services for customers and has activated LTE 2100 on [✂ [REDACTED] ✂] upgraded sites under the temporary license arrangement. On a national basis, [✂ [REDACTED] ✂] of Data traffic and [✂ [REDACTED] ✂] of voice traffic is supported on the 2.1 GHz band. In urban areas, there is a greater dependency on the 2.1 GHz band with [✂ [REDACTED] ✂] of data traffic and [✂ [REDACTED] ✂] of voice traffic supported on the band; and
- Eir contends that in the 700 MHz Band, it has deployed active services across [✂ [REDACTED] ✂]. On a national network basis [✂ [REDACTED] ✂] of data traffic and [✂ [REDACTED] ✂] of voice traffic is supported on the 700 MHz band. There is a greater dependency in rural areas where [✂ [REDACTED] ✂] of data traffic is supported on the 700 MHz band.

A 4.29 Under Option 1, Eir, Three and Vodafone would appear to be unable to deliver the services described above without utilising the 700 MHz and 2.1 GHz Bands. Absent access to these bands, the operators would have a choice of operating with reduced network capacity and/or attempting to re-dimension their network to mitigate for the expiry of existing rights of use. For example:

- Vodafone contends that should temporary rights not be extended in the 2.1 GHz Band, it would not be in a position to reconfigure existing networks to provide a service equal to the current network. In effect, it would be removing [✂ [REDACTED] ✂] of the installed cell capacity and this would have a detrimental impact on customers.
- Three contends that if short term licences are not made available, then it would be necessary for network operators to re-configure networks to maintain current services. Three claims that such a re-configuration of networks would require the reduction of spectrum currently available for 5G services and would therefore somewhat set-back its development in Ireland.

A 4.30 To the extent that operators intend to re-dimension their network as described by Three, ComReg notes that such a strategy is not a costless exercise and would require investments that would not ordinarily be needed; investments that may need to be unwound following the assignment of long-term rights of use in MBSA2. Further, such an approach may only partially address any consumer disruption.

A 4.31 Regardless of the approach taken by operators under Option 1, customers relying

on these services would likely experience consumer disruption such as those claimed by Vodafone (e.g., disruptive degradation in call connection, call-setup time, dropped call rate and data connectivity and throughput rate). Such disruption could lead to a significant increase in consumer complaints that would need to be handled for all operators and could result in reputational damage.

A 4.32 ComReg notes that the impacts on Eir may be less because its 2.1 GHz rights of use are assigned until 2027 and it has the option to liberalise those rights outside of any short-term licensing regime. However, Eir faces the same issues as Vodafone and Three in relation to the 700 MHz Band.

A 4.33 Under Option 2, any such impacts would be avoided because each of the MNOs could continue to provide the services described following the expiry of the 700 MHz and 2.1 GHz rights of use and for the duration of the short-term rights framework. MNOs responding to Document 22/72 clearly indicated that they prefer Option 2.

MVNOs

A 4.34 Under Option 1, short-term degradation in the capacity of the MNOs to carry MVNO services is likely to damage their competitive position in the short-term especially as the two operators facing imminent licence expiry in the 2.1 GHz Bands are the only two networks currently supporting MVNOs. MVNOs could also experience a significant increase in consumer complaints leading to reputational damage.

A 4.35 Accordingly, ComReg considers that the MVNOs would likely prefer Option 2 to avoid the same consumer disruption issues as their residing networks.

Other licensed operators and new entrants

A 4.36 Other operators and new entrants are likely to be indifferent between Options 1 and 2 given that the rights of use in question are for a short-term only. For example, Imagine may prefer Option 2 because under Option 1, MNOs may have a greater requirement for 3.6 GHz rights of use, some of which are currently leased to Imagine¹²⁰. Alternatively, some of these other operators may favour Option 1, if they perceive that access to short-term rights of use gives MNOs a competitive advantage over them at the margin (e.g. FWA competing with mobile broadband).

A 4.37 It is worth noting that these stakeholders can compete on the margin with mobile operators (e.g., such as fixed services including Fixed Wireless, even if those

¹²⁰ For example, Imagine is currently leasing 3.6 GHz rights of use from Eir and Vodafone. See [ComReg Document 22/64](#), “*Spectrum Lease Determination: Lease of spectrum rights in the 3.6 GHz band from Meteor Mobile Communications Limited and Vodafone Ireland Limited to Imagine Communications Ireland Limited*”, published 25 July 2022, available at www.comreg.ie

services might not formally fall into the same relevant market). All such operators, regardless of which option they prefer in this RIA, are likely to have concerns about the price at which those rights of use are provided. Even where such operators prefer Option 2, such operators are unlikely to want MNOs to benefit unreasonably or want competition between them and the MNOs distorted through the assignment of rights of use at a low price.

A 4.38 Fees are discussed separately in Chapter 5 of Document 22/72 and in Chapter 4 of this document.

Impact on competition

A 4.39 As noted in Chapter 1 of this document, the current situation whereby ComReg has little option but to grant short-term rights of use on an administrative basis is not good for competition. At best it sits uneasily with ComReg's statutory obligations and objectives, in particular that of promoting competition. ComReg's preferred option has always been to proceed with the long-term assignment of rights of use in the MBSA2 Bands. However, this option is not available because of the judgment of Mr. Justice McDonald which has necessitated ComReg proposing an administratively determined decision focussed on the MNOs so as to mitigate consumer disruption. With that in mind, ComReg notes that this RIA simply compares the assignment of short-term rights of use with the option of doing nothing and letting rights of use expire – the only two options available in the circumstances.

A 4.40 Solely within that context, ComReg notes that Option 2 is, on balance, less bad for competition than Option 1 because, unlike Option 1 which risks destabilising the market at least in the short-term to the detriment of consumers, Option 2 simply maintains the status quo from a competition perspective.

A 4.41 For the reasons stated above, ComReg is of the view that Option 2 is preferable over Option 1 in terms of the impact on competition.

Impact on consumers

A 4.42 Consumers attach enormous value to the continuous availability of mobile services and the potential adverse impact on consumer welfare if disruption were to occur could be potentially very high. Consumers would likely prefer options that avoid significant disruption to existing services and safeguard existing competition in the mobile markets concerned until such time that ComReg can complete its broader spectrum release proposals in a manner which would not distort competition. At Chapter 3 of Document 22/72 and earlier in this document, ComReg outlines the consumer disruption issues that MNOs believe could arise under Option 1. Consumers would likely prefer Option 2 to avoid such possibilities.

A 4.43 All three MNO's contend that the expiry of rights of use under Option 1 would lead to consumer disruption. For example, and among other things, Three maintains that Option 1 would:

- cause a significant degradation in the quality of and availability of mobile service in Ireland, with consequent disruption for consumers;
- be noticed by end users as reduced quality of service including cases where service would no longer be useable at all;
- impact an estimated [✕ [REDACTED] ✕] customers of Three and its MVNOs can benefit from this coverage at present;
- harm rural customer disproportionately because the 700 MHz band is of much more importance to people in rural areas and would account for a higher proportion of rural traffic; and
- severely impact on the quality of data service provided to customers over 4G and would also have an impact on voice service.

A 4.44 Eir maintains that there is a very significant dependency on the availability of both 700 MHz and 2.1 GHz rights of use and a massive risk of a serious degradation in customer experience to the entire Eir customer base if spectrum availability is constrained in any way.

A 4.45 Similarly, Vodafone contends that:

- Customers in high traffic demand areas using 2.1 GHz would notice a severe disruptive degradation in call connection, call-setup time, dropped call rate and data connectivity and throughput rate.
- Without the 700 MHz Band remote workers and customers in congested areas of rural Ireland would face significant service issues The expiry of 700 MHz would, in its view, remove the stability provided over the last two years to ensure connectivity standards have been maintained throughout more rural locations.

A 4.46 ComReg concurs that the expiry of 700 MHz and 2.1 GHz rights of use under Option 1 could create consumer disruption. While there is some degree of uncertainty about the extent of the disruption across different operators, large numbers of consumers could experience a degradation in coverage and quality of service. Further, while operators could take measures to mitigate this disruption, any such measures might prove insufficient. In any event, it is unlikely that some of these measures could be put in place prior to expiry of existing rights of use.

- A 4.47 Alternatively, Option 2 is a precautionary approach which effectively mitigates the possibility of consumer disruption for the duration of the short-term licence. Therefore, on the assumption that Option 1 could cause the disruption claimed by the MNOs, which appears reasonable, there would seem to be little doubt that consumers would prefer Option 2 over Option 1.
- A 4.48 However, ComReg notes that consumers would only prefer Option 2 in the current exceptional circumstances. Ultimately, consumers would likely prefer, as outlined by Vodafone in its response to Document 22/72, that long-term rights of use are assigned in an open competitive process as soon as possible. This would have the most positive impact on downstream retail competition in the long-run and should therefore promote the interests of consumers in terms of the choice, price, and quality of electronic communications services.

Preferred option – Assignment Process RIA (Step 5)

- A 4.48 This assessment has considered the impact of the various options from the perspective of industry stakeholders, as well as the impact on competition and consumers.
- A 4.49 For the reasons outlined in this RIA, ComReg is of the view that the preferred option identified under this 'short-term assignment' RIA is Option 2.
- A 4.50 ComReg notes that this preferred option has been formed based on Incumbent Licensees being best placed to address the consumer disruption arising from the expiry of existing 700 MHz and 2.1 GHz rights of use. ComReg considers it unlikely that other operators would be able to address this consumer disruption at such short notice and given the limited duration because it involves issues of service continuity that are relevant to Incumbent Licensees only¹²¹.

¹²¹ Indeed, no other operators responded to ComReg's consultation on the matter, as set out in Document 22/72.

Annex 5: Other matters raised by MNOs

The continued impact of COVID-19 on Mobile Networks

Views of Respondents

A 5.1 In its submission, Vodafone notes paragraph 3.62 of Document 22/72 which, amongst other things states:

“Further ComReg observes that:

- *The changes in traffic patterns and usage areas described by respondents, with a greater reliance on hybrid working are now likely to be a permanent feature of how network voice and data will be consumed”*

A 5.2 Vodafone considers it fair to say that hybrid and remote working is here to stay, however it believes that the situation around hybrid working and the rising cost of energy (and therefore more people working from home to save on fuel costs) makes it very unclear in terms of predicting national network demand and short-term capacity requirements by location. In this regard, Vodafone cites Government statements¹²² that business and employees plan to increase the levels of remote working and that there is a lag effect between such changes in society and its known effect on networks.

ComReg’s Assessment and Position

A 5.3 ComReg notes the views of Vodafone, however ComReg observes that:

- over time, even under normal circumstances pre COVID-19, the locations of traffic on a network would fluctuate and change, for example as new housing developments or infrastructure projects (e.g. opening of a new road) are completed resulting in the movement of people. Operators deal with this change as part of the normal management of a network to serve the needs of its customers.
- it was clear that a very sudden change in network traffic occurred with the introduction of the COVID-19 Government measures (See QKDR data summarised in Chapter 2), and ComReg responded by allowing
 - operators access to 2 × 10 MHz of 700 MHz spectrum (which is a 50% increase for sub-1 GHz spectrum for Eir and Vodafone, and a 40% increase for Three, compared to their pre COVID-19 sub-1 GHz

¹²² Gov.ie, “An Evaluation of the Impacts of Remote Working”, published 18 May 2022, available at www.gov.ie/en/publication/

(in evaluating the balance of interests as part of the legal test for granting a stay) he should not grant a stay to Three”.

- A 5.6 ComReg is of the view that it is not appropriate for it to publish the redacted text at this time, in light of, amongst other things, the *sub-judice* rule. For the avoidance of doubt, ComReg has fully considered the relevant text.
- A 5.7 As to why ComReg inserted a reference to Dr Maldoom’s report, the paragraph referring to it is simply one of seven examples given as to why the hiatus in the award of long-term rights of use is far from ideal.

Annex 6: Non-confidential submissions to Document 22/72

1 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:

The potential issue of short-term spectrum rights of use in the 700 MHz and 2.1 GHz bands from October 2022

Proposals to mitigate consumer disruption

ComReg Document 22/72



31 August 2022

DOCUMENT CONTROL

Document name	eir response to ComReg 22/72
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 agrees with ComReg's conclusion that it is appropriate to issue short term licences in the interest of mitigating consumer disruption, given the impact Covid 19 measures have had on the consumption of mobile data services, and, the ongoing delay to the MBSA2 process arising from legal issues. However, eir does not agree with the fees proposed by ComReg which appear to be excessive and punitive in the context of the rationale for issuing temporary licences with the sole objective of mitigating consumer detriment.

ComReg proposes that that the temporary licence fees should be based on the market value of the spectrum on the advice of DotEcon. One of the main arguments put forward by DotEcon is that *"allowing access to these bands for fees significantly below likely market value risks distorting efficient long-run investment decisions by operators"*.¹ However in the proposed approach to calculating temporary fees ComReg and DotEcon have both ignored the fact that the temporary licences do not provide any foundation for MNOs to make long term investment decisions. Long term decisions can only be taken when an MNO has certainty in terms of the long term spectrum rights it has access to. The required certainty to facilitate long term investment will only be achieved for each MNO on the conclusion of MBSA2. The temporary licensing is a near term necessity to mitigate consumer disruption in the short term pending resolution of the current legal uncertainty which is delaying completion of MBSA2. The temporary licence regime is not a precursor to the outcome of the award process. No MNO has any guarantee of the quantum of long term spectrum it will have rights to use after the award. Consequently the conditions to support long term investment are not currently present.

It is also our understanding that the temporary licences are not to be used for new business, i.e. 5G. This would be the technology MNOs would most likely invest in if they acquire new long term spectrum rights in MBSA2. Even if 5G is to be permitted in the temporary licences the uncertainty previously discussed is evident and significant investment would not be forthcoming during the temporary licences.

The market value benchmarks rely on the fact that significant long term investment is required to realise the value of the licences. Absent a supportive investment climate the temporary licences have little economic value to the licensees other than supporting the societal benefit of mitigating consumer disruption over potentially two adjoining three month periods — which is extremely short and under any definition of financial and/or network planning is very much short term. We note that

¹ Paragraph 5.14 of the consultation

ComReg proposes a 10% reduction on market value to account for the short duration of the temporary licences. However this adjustment is based on the flawed premise that the temporary licensees can make long term investments (noting the temporary licensees may not be the holders of the spectrum licensed under the temporary licences post MBSA2).

Taking the above into account eir considers that the market value benchmark should be reduced by at least 90% as the nature of the temporary licensing is such that the spectrum has no long term value. Indeed the sole objective of the proposed temporary licences is to the benefit for consumers avoiding significant service disruption pending resolution of the long term award of spectrum rights. It is incorrect to assume that MNOs stand to benefit in terms of their enterprise value from these very short term licences.

A number of the benchmarked countries must be removed from the analysis as they are clearly inappropriate. ComReg takes a benchmark of European awards as its starting point. The benchmark includes comparators which are not consistent with the state of play in Ireland. Belgium, France, Hungary, Italy and Sweden should be removed from the comparison as they relate to the outcome of awards in four player MNO markets and / or the amount of 700MHz spectrum made available in the award was less than 2x30MHz which has artificially constrained supply, inflating demand and resulting in higher prices.

It is also worthwhile noting that DotEcon appears not to adjust its benchmark for differences in payment schedules. MBSA2 is designed such that the SAF has to be paid immediately after the award. In contrast, in some of the benchmark countries (e.g. Italy and Belgium) bidders could pay the entire auction fee in instalments over (part of) the licence duration and must be adjusted for the time value of money.

The methodology proposed by ComReg to calculate the 700MHz temporary licence fees grossly overestimates the market value for these temporary licences and the fees for the temporary licences must be significantly reduced reflecting the fact that the major beneficiaries of the temporary licences are mobile consumers.

eir agrees with ComReg's proposal to "*Allow Eir to apply for short-term licence that allows it to use its current 2.1 GHz holdings on a liberalised basis without needing to liberalise using the option provided in the Decision.*"²

² Paragraph 5.99 of the consultation

2 Three Ireland (Hutchison) Limited

Short Term Licences

700MHz and 2100MHz

Response from Three

31st August 2022



Three.ie

1. General Comments

Three is pleased to respond to ComReg's proposal to issue short-term licences in the 700MHz and 2100MHz bands. Three previously responded to ComReg's Information Notice 22/63, as did the other Mobile Network Operators (MNOs). The responses received to that document demonstrate clearly that there is a requirement for short term licences in the 700MHz and 2100MHz bands in order to avoid disruption to consumers.

There are several aspects to ComReg's proposal that Three agrees with and supports, including:

- The duration of the licences proposed (3 months with a possible further 3 months)
- Technical conditions as currently apply
- Licences to be nationwide without specific location restrictions.

There are some aspects of the proposal with which we disagree, particularly relating to the approach ComReg has taken to developing the proposed licence fee. Further detail is provided on this point later in this document.

It is important to recognise that the 700MHz and 2100MHz bands are currently in use by MNOs to provide services to customers and that a gap in the availability of licences to use that spectrum will exist. Regardless of the reason for the emergence of that gap in access to spectrum it is a fact that it will exist and unless action is taken to eliminate it then there will be disruption to services currently enjoyed by consumers. Short-term licences are the remedy to this problem, they are not the cause of the licensing gap in the first place. Consideration of the proposal for short-term licences should exclude issues relating to the reason for the emergence of the gap in the first place unless directly relevant.

We note that ComReg has proposed to impose a licence fee for the short-term licences based on the concept of the market value for the spectrum. ComReg has determined these fees based on a benchmarking report from DotEcon which considers long-term licence values only. This approach is wrong and as a result ComReg has proposed a licence fee that is excessive and creates a barrier to the take-up of those licences. More detailed comments on the licence fee are provided later in this document.

Three disagrees with the interpretation that ComReg has taken to several of the issues raised in this consultation, including interpretation of points made by Three in response to previous documents and it is necessary clarify these matters here. We also note that ComReg has redacted part of Three's response to document 22/66 and this matter is also addressed in this document.

Finally, while recognising there is a requirement to establish the licensing scheme quickly, we note that the time allowed for response to this consultation was very short, making it difficult to address all matters adequately. We reserve the right to add further points to this response if necessary.

2. Licence Fee

While noting ComReg's statement that it does not have a revenue raising objective, Three believes ComReg has erred in interpreting the requirements for setting a licence fee for these

short-term licences and also in the method used to derive them. The result is that the proposed fees for short-term licences in the 700MHz and 2100MHz bands are excessive in both cases. This presents a barrier to the take-up of the licences which is not in the interest of end users and as a result is contrary ComReg's statutory obligations. ComReg has referred to the Authorisation Regulations, opportunity cost, and avoiding distortion of competition among other as reasons supporting the proposed fees. Excessive fees are a barrier to access to spectrum and as noted by DotEcon they could lead to short-term licences being turned down or returned to ComReg. We have already seen this effect in relation to the 2100MHz Interim Licences.

Requirement in the Authorisation Regulations

ComReg seems to have begun its consideration of an appropriate licence fee by concluding that the Authorisation Regulations require that licence fees are set at a level that reflects the value of the use of the resource. In Paragraph 5.3 of document 22/72, ComReg states:

“In accordance with Regulation 19(1) of the Authorisation Regulations, ComReg is permitted to impose fees for rights of use for radio frequencies which reflect the need to ensure their optimal use. In the normal course, ensuring that operators make optimal use of scarce resources essentially means that fees are set at an appropriate level to reflect the value of the use of those resources, having regard to any significant factors determining that value.”

This is not a correct interpretation of the Regulations, in fact Regulation 19(2) states:

“(2) The Regulator shall ensure that any such fees referred to in paragraph (1) shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the objectives of the Regulator as set out in section 12 of the Act of 2002 and Regulation 16 of the Framework Regulations.”

This does not mean that fees must be set to reflect the value of use. In circumstances where it is expected that demand for access to spectrum will exceed supply and an auction is to be used to determine the assignments, then the licence fee is normally determined within the auction also. This is not to ensure that the licence fee reflects the value of use of the resources but is to ensure optimal use, i.e. an efficient outcome from the award process.

Given the short term nature of the proposed licences, ComReg has rightly proposed that direct administrative assignment is most appropriate. This means the licence fee will not have a role to play in determining an efficient outcome, and there is no requirement under the Authorisation Regulations to charge a licence fee that reflects “*the value of the use of those resources*”. In any case, the determination of the value of the use of the resources is difficult in this case.

Opportunity Cost

It is common for ComReg, when issuing radio licences to set the fees by reference to the relevant opportunity cost. It is a fact arising from the circumstances in which the short-term licences are to be issued that there is no alternative use for the spectrum and so the

opportunity cost is zero. ComReg has rejected this fact as a consideration citing DotEcon's response. In paragraph 5.24, ComReg states:

“Further, DotEcon notes that Three’s argument that the opportunity cost of the spectrum is essentially zero because no operators other than the MNOs can use this spectrum is incorrect. DotEcon points out that the only reason that spectrum would not be available to others is because of a decision to make short-term licensing available only to the MNOs, on the assumption that the MNOs are best placed to prevent the consumer disruption that could arise because of the delayed assignment of long-term rights of use in the 700 MHz and 2.1 GHz bands following the Court approved stay.”

While recognising the circumstances under which other uses have been excluded, it is still a fact that under the current circumstances the opportunity cost is zero. ComReg’s position regarding the circumstances which give rise to zero opportunity cost is the opposite of the position taken by ComReg in relation to MBSA 2 and the position argued by ComReg in court in defence of that decision. In the case of MBSA 2, ComReg stated that because Three was to be prevented from bidding for a third lot of 700MHz of spectrum by the decision to impose a cap on Three, then the value Three has for a third lot is irrelevant and should not be taken into account when determining the fees to be paid by other bidders, i.e. ComReg’s position is that the opportunity cost counted should be zero. **These two opposing positions cannot both be right.**

ComReg has also drawn a similar conclusion to Three in considering the licence fee for Covid-19 Temporary Licences, where it stated that:

“The 2.1 GHz Band is already assigned to the three MNOs and therefore there are no other users that could make more efficient use of temporary liberalised rights of use in the 2.1 GHz Band in the short-run. Therefore, the opportunity cost associated with temporary liberalised rights is likely zero¹” [emphasis added].

It is then surprising that ComReg has chosen to reject the same logic in this case by stating that it is:

“. . . simply a construct used by Three to justify little or no fees for the use of an important and valuable spectrum resource and arises only because because of the judgement of Mr Justice McDonald which has necessitated a proposed administratively determined decision focussed on MNO’s solely to avoid any potential for consumer disruption.”

It is a fact that the gap in access to spectrum has emerged and that short-term licences are required regardless of how that situation has arisen. ComReg might not agree that Three should have appealed the MBSA Decision or sought a stay, however the decision has been stayed in accordance with the law and this should not influence the decision ComReg must make now.

¹ COVID-19: Temporary spectrum management measures – Temporary spectrum rights in the 700 MHz, 2.1 GHz and 2.6 GHz Bands (ComReg 20/21)

If ComReg did not make the short-term licences available to existing users, the overwhelming likelihood is that the spectrum would simply remain unused and end users would suffer loss of service. It remains the case that the opportunity cost arising from the short-term licences is zero.

Distortion of Competition

The remaining argument in favour of the fees based on market value seems to be to prevent distortions to future/long term incentives or the “toe-hold” as DotEcon puts it. Contrary to the concerns raised by ComReg (in paragraphs 5.13, 5.14, and 5.16), low fees are not going to distort competition – the duration of the licences proposed is too short and long-term investment decisions will not be made on this basis. The licences will be obtained in order to protect existing services. Again, contrary to the concern expressed in paragraph 5.18 – an operator is not going to obtain a 3-month licence simply because the licence fee is low. That would be pointless unless some use can be made of it over the 3-month period. No gains are likely to be made on the back of a 3-month licence. One of the concerns expressed by DotEcon is that the licences might have an extended duration, but there is no basis for this. The proposal is simply for a 3-month licence with the possibility of a further 3 months.

DotEcon itself seems to recognise that there will not be a long-term risk of distortion to competition arising from the grant of either 2100MHz or 700MHz licences and has concluded on this matter in Section 5.1 of its report:

“In addition, we do not see any significant risk of distortion to the award outcome from issuing short-term licences for the 2.1 GHz band if these are assigned only for spectrum held under existing rights of use and so simply preserve the status quo” Price at zero then will not distort competition.

“We therefore do not envisage that granting short-term licences should have any substantial impact on the position of operators going into the MBSA2, provided that each MNO is limited to two blocks of 700 MHz and prices are not too low.”

These conclusions are not conditional on any particular licence fees applying, so it seems that preventing the distortion of competition or the “toe-hold” does not require that licence fees are set at the levels proposed.

Other Concerns Raised by ComReg

In paragraph 5.31, ComReg raises a concern regarding the potential for incumbent licensees to seek to delay awards simply to maintain short term licences at low fees. This concern is not well founded. Operators do not have a means to delay awards other than as set out in law, and it is not credible to suggest that operators would take an appeal or other legal action for this purpose.

In paragraphs 5.29 & 5.30, ComReg refers to licence fees charged for Mobile Satellite Services where the licences had a 10-year duration. ComReg was concerned with distortion to competition over the term of the licences. This is not a situation that applies in this case where we are considering 3-month licences (plus a possible further 3) and there is no prospect of long-term distortion of competition for the reasons outlined above.

Options Available – Retrospective Fees

Having considered the above, it seems that several options remain available for consideration by ComReg in setting the licence fee, including administrative cost recovery, nominal fees, and retrospective fees. We note that Eir has suggested retrospective fees in its response, i.e. that once the long-term award process is concluded all fees should be effective from 15 October 2022 and backdated as appropriate. We believe this proposal warrants further consideration.

The short-term licences fall within the time when ComReg says that MBSA 2 licences were intended to operate. ComReg had planned to issue licences that in the main would be in place for 20 years. While the commencement date for the licences in Time Slice 1 has been delayed, the date for transition to Time slice 2 and the final expiry date for Time slice 2 have not changed - it is just that time Slice 1 has been shortened. The short-term licences will exist entirely within the originally planned duration of the MBSA 2 licences. On that basis, it would seem logical that for any MNO who obtains a short term licence that it should be possible for the fee for that licence to be offset against the licence fee for any spectrum won in the award. Otherwise that licensee will have paid twice for access to what is essentially the same thing, and through no fault of their own as it is a result of the court decision delivered in accordance with the law.

This proposal was rejected by DotEcon on the basis that it might distort bidding in the long-term award, however this doesn't stand up to scrutiny. Bidders are not going to alter their bidding for 20-year licences to make a saving on a 3-month one.

Method used to Determine Fees

ComReg has proposed that licence fees should be set by reference to the market value of the spectrum to be licenced. In the absence of information to determine the market value, DotEcon has updated and modified its benchmark report that was used to determine the minimum fees for the MBSA 2 award. There are several problems and errors in the way this benchmark has been used.

In the first place, benchmarking does not determine market value but at best can only give a proxy as it makes comparison with other awards. In order to be useful or accurate a benchmark must be able to compare similar items in similar conditions, otherwise it is meaningless. In carrying out the benchmarking analysis, DotEcon has made a fundamental mistake by using data for 20-year licences to determine the expected market value of licences that are just 3 months in duration. The two are simply not comparable and this renders the benchmark conclusion unusable as it grossly overestimates the licence fee.

This issue has been previously considered by DotEcon when considering how to determine a price for liberalisation of 2100MHz spectrum. In this case, the conclusion was that:

“... benchmarking only provides an approximate estimate of likely market prices. Benchmarks are useful for setting reserve prices, as these are typically set conservatively below estimates of market prices. To the extent that benchmarks provide uncertain estimates of likely market prices, reserve prices can be set more conservatively to reflect this. However, such uncertainty is more problematic in the context of trying to set fees for liberalised spectrum intended to reflect a central estimate of market prices. A benchmarking approach is also unlikely to be

useful as prices paid in other awards are for spectrum licences that span many years, with a major component of the market price relating to the cashflow benefits that spectrum generates for operators in future years. Benchmarking data is therefore likely to have limited relevance for estimating the market price of liberalised licences lasting only two years or less²” [emphasis added].

It is difficult to reconcile this position from DotEcon which was accepted by ComReg with the current proposal that benchmarking of 20-year licences should be used to determine the fees for 3-month licences. The obvious difficulty is that 20-year licences represent a long-term investment where returns can be made over the lifetime of that licence. It is not similarly possible to recover the costs associated with using the spectrum over a very short term, so data from a 20-year benchmark grossly overestimates its value.

We note that DotEcon has recognised this issue and has introduced a correction factor within its report, however this is inadequate. This is a re-phrasing to reflect the fact that over the course of a long-term licence returns are likely to be greater in later years (which itself seems to be correct for a long duration licence) however for a very short-term licence there is likely no opportunity to make a return at all, which again suggests that a nominal licence fee or fee based on administrative costs is appropriate.

Specific Errors within the Benchmark

Without prejudice to the above points regarding the suitability of the benchmark at all, there are some specific points within the benchmarking report that are incorrect. These include the elimination of data points where spectrum was sold at reserve, the switch from geometric to arithmetic mean, and the correction factor to profitability even for a 20-year licence.

In the datasets used, DotEcon has chosen to eliminate references where spectrum has sold at the reserve. This is incorrect as a case where spectrum sold at reserve represents the highest fee obtained for that particular assignment and is just as valid as any other data point. If the spectrum has been set-aside at the reserve price for some purpose (e.g. a new entrant) then the benchmarking analysis should not simply eliminate the reserved spectrum datapoint without also adjusting the other prices to reflect the fact that prices would have been artificially inflated by the reduced supply remaining available to bidders. Overall we believe this adjustment is incomplete and as a result is erroneous.

DotEcon has chosen to switch from using the geometric to arithmetic mean for the short-term licence fees. This seems strange given the acknowledged uncertainty involved in using benchmarking and the consequence of an excessive price – to create a barrier to obtaining a licence. As quoted previously above, DotEcon’s position on this matter is that:

To the extent that benchmarks provide uncertain estimates of likely market prices, reserve prices can be set more conservatively to reflect this. However, such uncertainty is more problematic in the context of trying to set fees for liberalised spectrum intended to reflect a central estimate of market prices.

² Proposed award process for rights of use in the 700 MHz, 2.1 GHz, 2.3 GHz and 2.6 GHz bands – a report from DotEcon Limited dated 18 June 2019 (ComReg 19/59a), paragraph 3.3.4

Just as was the case when setting reserve, DotEcon should have continued to use the geometric mean for the same reasons.

Finally, DotEcon has included a correction factor to reflect the fact that spectrum licences are more profitable in later years than in earlier ones. As explained above, Three does not believe this adjustment is adequate to make the benchmark reflective of very short term licences, nevertheless we believe the way it has been applied here is inaccurate for what DotEcon intended. Three agrees that greater returns can be expected at the later years of a long-duration licence, however the approach taken assumes positive profit from the beginning of the licence. In reality, during the earlier years when investment is high but service revenue may not be, a loss will be made. This gives a swing from loss-making to profitability which is significantly greater than the incremental profitability shown in Table 2 of DotEcon's report. In order to replicate this in the linear annual growth table, we estimate that the assumed annual profitability growth rate should be approximately doubled to 8% (and again this is without prejudice to our views as expressed above).

3. Clarifications and Corrections

There are some clarifications and corrections that are necessary to address in this document.

ComReg Redaction Three's Response

In document 22/72, ComReg published what purports to be the non-confidential responses received to document 22/63. In the case of Three's response, ComReg itself redacted part of the response even though Three had not requested this. The relevant paragraph has been reproduced again here:

"We note that in paragraph 6 of the consultation document ComReg refers to the recent court proceedings regarding the stay on running of the Main Stage of the auction. ComReg refers to part of Dr. Maldoom's report (which was referred to also by Professor Clinch), in which it was claimed that there would be a loss to the economy of the order of €1bn due to delay in the issue of long-term licences. [REDACTED]

REDACTED BY COMREG

[REDACTED]. It is unclear why ComReg has chosen to repeat this point here in a consultation regarding short-term licences to provide for continuity of existing services, when its original purpose seems to have been focussed on persuading Judge McDonald that (in evaluating the balance of interests as part of the legal test for granting a stay) he should not grant a stay to Three".

Three sees no reason why this paragraph has been removed from the published response. It is not confidential. It is concerning that ComReg would choose to amend what Three itself believes is non-confidential within its response without explanation or reference to Three. This reduces the transparency of the consultation process.

Reference to Reserve Price

ComReg has used a number of references to the proceedings where Three obtained a stay on the proceeding of the Main Stage of MBSA 2, seemingly to forward an argument that the short-term licence fee should include an element reflecting the reserve price in the MBSA 2:

“5.73 ComReg observes, however, that Three’s position in this consultation appears to conflict with its position in Three Ireland (Hutchinson Limited) v ComReg where Mr. Tom Hickey, in his affidavit states:

“However, I say and am advised that (to the extent that it arises) such a concern would be very easily resolved by increasing the price of such licences to reflect the level of the reserve price which ComReg proposes to apply to such spectrum in the Intended Auction (or other appropriate measures).” 69 [emphasis added]

5.74 Similarly, Counsel for Three, referred to same in oral submissions:

“Again, there’s nothing to stop ComReg increasing the fee for these temporary licences that we need. For example, to the reserve price for the spectrum in the main auction, using the reserve price as a guide charged, say, on a monthly basis as the fee for these temporary licences.” 70 [emphasis added]

5.75 For the avoidance of any doubt, the reserve price in MBSA2 is the SAF component of the minimum price, and this has been the case in the last five spectrum auctions (of which Three were winning bidders in four). Therefore, Three would be entirely aware that the reserve price represents only the SAF component of the minimum price, and its submissions on affidavit and in open court contradict its response to Document 22/63 where it suggests that it would not be appropriate to include a component of the SAF in the proposed fee”.

In fact this issue was raised by Three in response to a supposed barrier to the issue of short term licences that was raised by ComReg, namely that nominal fees as applied for the Covid-19 licences would give rise to concerns of illegal State Aid and confer an advantage on MNOs. This was cited by George Merrigan as part of the argumentation against the grant of a stay.

In response, Tom Hickey stated:

“149. In paragraph 95 of Affidavit GM3, Mr Merrigan suggests that any new short-term licences or a continuation of temporary licences on the basis of nominal charges will potentially raise State aid issues. However, I say and am advised that (to the extent that it arises) such a concern would be very easily resolved by increasing the price of such licences to reflect the level of the reserve price which ComReg proposes to apply to such spectrum in the Intended Auction (or other appropriate measures).”

And

“152. First, he says that the Covid 19 licensing framework has been advantageous to MNOs due to fees being set at a nominal level. Again, as with the purported issue in respect of potential state aid, to the extent that this is a genuine concern ComReg can simply increase the price of such licences to reflect the level of the reserve price which ComReg proposes to apply to such spectrum in the Intended Auction”

The purpose of these two paragraphs was to explain to the court that this issue was not a reason to deny the Stay of ComReg’s Decision because these purported barriers could be resolved by charging an appropriate fee. It remains the case that these concerns of ComReg’s can easily be eliminated by charging an appropriate fee and a fee based on the reserve price

certainly eliminates these concerns. This point remains factually correct, however it is not necessarily the only price-point/fee that can do so and the purpose of the current consultation process is to determine those fees.

Further, we note that ComReg has not in fact proposed to charge a fee based on the reserve price but has proposed to determine the fee based on the total market value of a 20-year licence, which includes both the Spectrum Access Fee (SAF) and the Spectrum Usage Fee (SUF).

In Paragraph 5.77 ComReg's stated position is that the SAF is used to discourage frivolous bidders in the auction, while the SUF incentivises efficient use of spectrum during the operation of the licence. According to ComReg's logic, this would indicate that only the SUF is appropriate to take into consideration for the short-term licence fees where no award process is needed.

3 Vodafone Ireland Limited



Vodafone Response to Consultation (ComReg 22/72)

The potential issue of short-term spectrum rights of use in the 700MHz and
2.1GHz bands from October 2022

Proposals to mitigate customer disruption

Version: [Non-Confidential]

Date: 31/08/22

Introduction

Vodafone is responding to ComReg document 22/72 on proposals to make available spectrum rights in the 700MHz and 2.1GHz bands.

We have commented below on aspects of ComReg's consultation. To best summarise views

1. **Duration:** Vodafone agrees short-term rights in 700MHz and in 2.1GHz should be for a minimum time necessary. We do not seek nor support delay and agree the conclusion of MBSA2 needs to happen as soon as possible. Vodafone has consistently stated this position.
2. **Purpose:** The short-term rights are needed to avoid significant disruption. We must maintain support for those locations that required capacity interventions to deal with ongoing volatility and variability in patterns of use.
3. **Fair Valuation:** The short-term spectrum should not be charged in a way that discourages take-up especially when the spectrum is likely to remain unused absent extension under short-term. It is not fair to charge value of a long-term assignment for such short-term allocations and amendment/adjustment to current proposals is both appropriate and necessary.

It is also worth noting it is a very uncertain period for the sector with the current energy crisis and it is not appropriate to impose further high cost when we are fulfilling a common objective to avoid consumer disruption and provide capacity in those areas that need it for the coming months.

Detailed Comments

1. The Duration of Spectrum Allocation

The Vodafone position is clear, namely that short-term rights should be for the minimum time necessary, as detailed in Paragraph 3.32 of the consultation. ComReg will be aware that Vodafone has consistently argued, since 2015, that Ireland should be aligned with other EU countries both in the spectrum assigned and the timeframes for allocation and there is no incentive for delay. This position has remained consistent throughout the temporary allocation period and is further demonstrated by Vodafone's continued support of ComReg MBSA Decision D11/20.

We are therefore concerned that aspects and assumptions in the ComReg paper seem to indicate a belief that Vodafone support delay. This would be wholly incorrect if this is the case.

For example, In Paragraph 1.7 ComReg state that the current situation is far from ideal and in gives the example in the fourth bullet point that *'it creates continuing incentives for MNO's to seek to delay MBSA2.'* This is incorrect in the context of Vodafone who have pushed repeatedly for clarity on MBSA2. This clarity can only be provided through long-term assignment of 2.1GHz, 700Mhz and other bands.

We also refer to the commentary from Dot Econ in footnote 72 of the ComReg paper. In footnote 72 DotEcon cites the example of Vodafone, in supporting Three's application for a stay despite having previously supported ComReg in the substantive appeal (and also re-asserting that support in its intervention regarding the stay), is suggestive that Vodafone's preference is for the MBSA2 to run with the rules as set out in the Decision in the event that auction is held, but for that auction to be delayed if possible.

This text misinterprets and misrepresents the factual Vodafone position. Vodafone did not wish the auction to be delayed and its very clear from representations in proceedings why Vodafone felt compelled to support the stay. Vodafone have consistently stated we wanted the award process to be completed in line with ComReg MBSA2 decision as soon as possible. Our representation on the stay referred to the administrative and governance complexities arising when running the process in the absence of a ruling on the substantive case. We have consistently stated our preference that ComReg complete the MBSA2 process.

2. The purpose of the temporary spectrum allocation

There is general agreement that the removal of 700MHz and 2.1GHz would have a significant disruptive effect.

In relation to patterns of use on the network, ComReg make the observation in Paragraph 3.62 that the changes in traffic patterns and usage areas described by respondents, with a greater reliance on hybrid working are now likely to be a permanent feature of how network voice and data will be consumed.

It is a fair point that hybrid and remote working is here to stay however in terms of predictive national network demand and short-term capacity requirements by location the position remains very unclear. The current traffic patterns are considerably different to pre-Covid and the reality of network capacity requirements is that planning is very complex. The Covid-19 measures have been relaxed, allowing free movement, however, there remains uncertainty regarding the temporary vs permanent usage demands as return to work continues and patterns if use are mixed between fully remote, hybrid and return to office. These patterns continue to effect both the volume of traffic and the locations of traffic demand. A recent government evaluation¹ found strong evidence that both businesses and employees have post-pandemic plans to increase the level of remote working. It is generally agreed however that businesses are in the policy development phase on new ways of working. There is a lag effect which must be accepted by all. There is also uncertainty in the current energy crisis that more workers, in particular those in more dispersed locations who cannot use public transport, may look to remote working to save on fuel costs. The network capacity needs to be available to support these patterns of use and this can only be provided through the allocation of 700MHz and 2.1GHz on a temporary basis at a fair value.

As further detailed in paragraph 3.62, the shorter-term rights are being put in place solely to mitigate the consumer disruption that would be caused due to the expiry of existing licences. Vodafone agrees with ComReg in this respect, and we have invested considerable resource to provide network capacity to customers at locations that had much lower demand before the Covid emergency. There were no additional charges imposed to cover this cost. The proposed short-term rights of use will allow us to continue to avoid disruption in an uncertain demand market, but it is clear this does not result in additional revenue and we are not rolling out enhanced services. We are simply providing the temporary capacity that is needed at this time.

3. The requirement for a fair valuation on temporary spectrum

Assumptions on Economic Gain:

In paragraph 5.3 ComReg state that here is little doubt that rights of use for scarce resources, such as the spectrum bands in question, enable the holder of those rights to make significant economic gains. This is likely the case where there is certainty of access to the spectrum. In the case of the current temporary allocation

¹ [gov.ie - An Evaluation of the Impacts of Remote Working \(www.gov.ie\)](http://www.gov.ie)

Vodafone has, as indicated above, added new capacity without any additional revenue stream through extra charges or enhanced services.

Furthermore, as customers moved location capacity was as left unused in city centre areas while we installed new equipment to suburban/rural sites. We note this cost is significant as that it is not economic to move parts of a base-station equipment to rebalance capacity. Our efforts to maintain quality of service for customers was not profit generating. The economic argument would have been to do nothing which would have led to service degradation in suburban and rural areas. This was not in any stakeholder's interest.

In paragraph 5.16 ComReg suggests that the provision of spectrum below its market value could cause operators to make decisions about the use of the spectrum in the short-run based on fees that are not sustainable in the longer run and that such decisions could result in investments that are not sustainable in the long run and would be inefficient. The reality throughout the temporary allocation period is that Vodafone has made short-term decisions that are not economically optimum: with the aim of supporting the national need for connectivity in an emergency. We now need to continue providing this support to avoid any customer detriment for the minimum period until the position on allocations is clear as MBSA2 concludes. We do not wish MBSA2 to delay in any way as demonstrated by Vodafone's support of ComReg's position on the Three legal challenge.

In paragraph 5.20 ComReg state investments are unlikely to have been made with a view to them being unwound once the temporary situation ended. We must disagree. The mobilisation of the temporary regime was in response to a national effort and the need for all parties – government, ComReg and industry, to meet the national need to keep citizens connected. At the time many citizens moved their demand to suburban commuter zone, rural and remote locations that did not have the capacity to meet the sudden change in usage patterns. Vodafone mobilised plans at the request of government at that time to introduce unlimited data packages to meet the higher ongoing demand of customers who now needed to work and connect from home in a different way. Many of these customers will now return to city-based offices we will have to add new capacity in cities in the future. Furthermore, a move to 5G could render parts of this additional 4G capacity obsolete. We therefore request ComReg to further consider the temporary nature of this demand into account in assessing value.

ComReg Proposals on Market Value:

In paragraph 5.14 ComReg state that allowing access to bands for fees significantly below likely market value risks distorting efficient long-run investment decisions by operators. DotEcon advises that charging the likely market value is necessary if MNOs are to have the correct incentives to continue to make efficient decisions now concerning their long-run spectrum positions.

This proposal if left unchanged would completely ignore the fact that an operator cannot make a significant network investment decision based on a six-month temporary licence. This must be accounted for in the value being assigned to the spectrum. The market value must fully reflect the value of a short-term assignment which we say is significantly less than a proportion of the whole period which is currently under consideration. A short-term licence, of uncertain duration, does not allow the normal patterns of investment in new technology, marketing and applications that would be part of a 20-year investment in 5G and its value is instead the value received from maintaining levels of quality of service on existing 4G services.

The current proposal is to set high fees for a short-term and temporary allocations. If this was advanced this will have a punitive effect on those of us providing ongoing capacity resource during the Covid emergency and recovery. Vodafone agree that ComReg's objective here should be to ensure the optimal use of radio spectrum, in line with ComReg's statutory objectives. As ComReg note that there is no feasible alternative user

of this spectrum in the short term hence there is no efficiency driver to set a high price for short term usage. Hence the usual ComReg justification for full market value spectrum fees does not apply in this circumstance.

The Benchmarking approach must also be reconsidered. In establishing its benchmark ComReg advise on paragraph 5.63 that the current approach has been updated by only retaining price data for licences that sold above reserve. Therefore, some of the awards included in the MBSA2 reserve benchmarking are removed. In the very short period, we have been afforded to assess this proposal we are not exactly sure of effect of excluding spectrum not sold at reserve. Surely if spectrum is sold at reserve that is the market value. It is likely however that the benchmark value itself is not the significant factor. The key point is that the temporary nature of the Spectrum significantly reduces the value and must be the primary consideration in establishing a true value position. We do not agree that ComReg have made a reasonable assessment of true market value and benchmarking against a select range of completed auction outcomes with values above an arbitrary threshold is not appropriate.

Further Vodafone Proposals for Value assessment:

Vodafone cannot support allocation of the spectrum with ComReg's proposed calculation of spectrum value. The assumption in ComReg's calculation is that the operator would be earning the first portions of incremental income that we expect from a 20-year investment in spectrum. This is not the case and fails to take account of the fact that we cannot feasibly make (and have not made) any long-term investment in 5G while we have a short-term licence. Logically therefore in the temporary period it is not possible to make any of the incremental return we would expect to earn from a long-term investment in 5G and associated new services.

The purpose of this temporary assignment is clear, and that is to mitigate the disruption that would be caused by the ceasing of these assignments – See ComReg paragraph 3.62. ComReg has acknowledged it will take some time to settle down post ending of the Government's formal Covid measures. In Comreg 22/22 it states "there remain various other factors to assess . . . the lag effect between the withdrawal of COVID-19 measures and the emergence of stable traffic patterns, noting, among other things, that the return to work in offices is proceeding on a phased basis depending on the circumstances of individual workplaces"

As outlined above it remains clear that the return to office is 'work-in-progress' and stable traffic patterns have not been established. The current use of this spectrum may be considered as a 'transitional usage', from the Temporary Measures to some future stable situation. It is useful to note also that there is precedent for continuing a charging regime during a transition process, such as that which applied with WiMax licences and the allocation of 3.6GHz spectrum. We suggest therefore that the calculation should be based on a fair value, which fully takes into account in a realistic way the very reduced value that a short-term licence can realise for operators.

The proposal

- (a) **As a starting point** ComReg should use the previously calculated benchmarks from MBSA2 IM. These figures have been consulted on and reviewed. We have confidence that they are reasonably appropriate values. It is unwise to introduce a change in methodology in such a short consultation such. The minimum prices currently set for the spectrum for the MBSA2 are equivalent to prices for a 20-year licence of:
- 0.47 €/MHz/Pop. for the 700 MHz band; and
 - 0.25 €/MHz/Pop. for the 2.1 GHz band. "
- (b) **The charge for 700MHz should then be adjusted downwards** to reflect the limited use to operators, and the overriding objective which is the avoidance of disruption to customer service. In line with the guidance

given by ComReg in previous rounds of Temporary spectrum assignment Vodafone are using this spectrum at existing sites, to prevent localised reduction in quality of service.

The spectrum is currently used only for 4G services, and only on approximately █% of the radio sites used by Vodafone. We therefore propose that it would be entirely appropriate to charge a figure not more than █% of the market value identified in 1 above. We acknowledge that it would be appropriate to adjust upwards the █% figure at any future 3 month extensions should the proportion of sites equipped with 700MHz be extended..

- (c) **We propose the charge for 2100MHz** should be, at most, at the benchmark figure used in the MBSA2 IM. There is in fact justification for ComReg to reduce this figure below market value to avoid spectrum being returned. If any spectrum is returned pre-auction then that would risk creating signals on spectrum value, a scenario that ComReg should be careful to avoid.

We submit for ComReg consideration. It is in everyone's interest that the appropriate level of service is maintained for customers in next few months with the expectation that this regime only needs to be in place for a matter of months. Vodafone will engage at any time if further clarity is required.

ENDS