



Submissions to Consultation

Inclusion of the 1800 MHz Band into the Proposed joint award of 800 MHz and 900 MHz Spectrum

**Consultation responses received from respondents &
correspondence with interested parties since
publication of Consultation 10/105**

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Consultation Responses

- 1 Eircom Group
- 2 Hutchison 3G Ireland
- 3 Telefonica O2
- 4 Vodafone Ireland

4.1 Paper submitted by Vodafone Ireland, compiled by McCann Fitzgerald

Correspondence provided by respondents (and ComReg written responses to same) in the period following publication of submissions to Consultation 10/105

- a) Telefonica O2: "02's 900MHz Licence - Interim Licence post-May 2011" (*dated 22 December 2010*)
- b) ComReg: Reply to Telefonica O2 letter of 22 December 2010 (*dated 23 December 2010*)
- c) Telefonica O2: "02's 900MHz Licence - Interim Licence post-May 2011 ("Interim Licence")" (*dated 13 January 2011*)
- d) ComReg: Reply to Telefonica O2 letter of 13 January 2011 (*dated 18 January 2011*)
- e) Telefonica O2: "02's 900MHz Licence - Interim Licence post-May 2011 ("Interim Licence")" (*dated 25 January 2011*)
- f) ComReg: Reply to Telefonica O2 letter of 25 January 2011 (*dated 2 February 2011*)
- g) ComReg to H3GI: "Hutchison 3G Ireland's submission to ComReg consultation 10/105" (*dated 26 January 2011*)
- h) Hutchison 3G Ireland: Reply to ComReg letter of 26 January 2011 (*dated 27 January 2011*)
- i) ComReg to H3GI: "ComReg Doc. No. 10/105" (*dated 2 February 2011*)

Consultation Responses

1 Eircom Group

eircom Group

**Response to ComReg Consultation Paper
Inclusion of the 1800 MHz Band into the proposed
joint award of 800MHz and 900 MHz spectrum**

ComReg Document 10/105

28 January 2011

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The comments submitted to this consultation are those of Meteor Mobile Communications Ltd. and eircom Ltd, collectively referred to as 'eircom Group'.

Executive Summary

- eircom Group fundamentally disagrees with the use of full band auctions as a means to address licence expiry. The points of concern and principle discussed in detail in our response to ComReg 09/99 in connection with the auction of the 900MHz band apply equally to the 1800MHz band and our response to ComReg 09/99 must accordingly be read as concerning all bands which ComReg may propose to auction. ComReg's proposals to undertake full band auctions as a remedy to licence expiry undermines the promotion of investment, will likely diminish competition, will create negative impacts on consumers, and is contrary to the legitimate expectations of existing licensees. Furthermore clear rights of renewal or, preferably, an indefinite duration should be attached to the licences awarded in any licensing process.
- The spectrum which ComReg proposes to auction could potentially play a very significant role in bridging the digital divide arising between urban and rural areas in Ireland by providing the basis for the provision of broadband access to rural areas. It appears to eircom Group that ComReg, in pursuance of its statutory objectives as set out in section 12 of the Communications Regulation Act 2002 as amended must, before proceeding with any auction fully consider this potential including through consultation with the Minister in charge of communications, the Government, all communications networks and services providers including both fixed and mobile operators, as well as rural communities.
- Whilst we disagree with ComReg's proposed mechanism to address licence expiry and liberalisation, we do welcome ComReg's holistic consideration of the spectrum bands in question. However it is disappointing that ComReg has not considered the establishment of truly liberalised flexible spectrum rights including rights to licence renewal, spectrum trading, spectrum sharing and spectrum pooling. Such rights must be established in advance of issuing any new licences to maximise the societal and economic potential of the spectrum.

Without prejudice to the foregoing:

- We reject ComReg's proposal to set an overall cap of 2x50MHz, which would unfairly favour the large established operators O2 and Vodafone, both part of well financed international groups, affording them the opportunity to squeeze out the competitive tension created by smaller operators and potential new entrants. Such a cap might artificially stimulate competition at the auction but it would be at the expense of the long term competitive functioning of the market. We propose an overall cap of 2x40 MHz to safeguard competition in mobile markets for the duration of the auction.
- eircom Group is supportive of the full assignment round proposal. Relocation costs must be fully compensated for the auction to remain efficient.

- ComReg must avoid regulatory opportunism and calculate rebates using the cost of capital as a proxy for loss of profits.
- In its responses to ComReg 09/99 and ComReg 10/71, eircom Group pointed out that ComReg's proposed reserve prices are excessive. This creates a significant risk for the efficiency of the award process. Best practice auction design and the well known negative economic outlook strongly indicate that a more conservative approach is required. eircom Group urges ComReg to review its reserve prices.
- Further clarification is required regarding the proposed methodology for LTE coverage measurement.

Response to Consultation

eircom Group welcomes the opportunity to further contribute to the ongoing debate regarding the future licensing and liberalisation of mobile spectrum bands.

1 An alternative approach is required for existing licences

The current consultation, ComReg 10/105, considers the means to include the 1800MHz band into a proposed joint auction of mobile spectrum bands. It should be noted that whilst we offer views in respect of the questions raised in the consultation we remain of the fundamental view, as expressed in previous submissions, that a full band auction is not the appropriate mechanism to address expiry of existing licences. Rather, a mediated industry settlement should be progressed in respect of the 900MHz band, as set out in our response to ComReg 09/99, and an equivalent approach undertaken in respect of the 1800MHz band.

We note the proposal by Hutchison 3G (H3G) in its response to ComReg 10/71, for ComReg to administratively assign 2x5MHz at 900MHz to H3G and the three existing 900MHz licensees. For the avoidance of doubt we do not consider this proposal acceptable. Existing 900MHz licensees each require access to 2x10MHz at 900MHz if they are to have a transition path to UMTS900. H3G's proposal would give it an unfair advantage as its competitors would be hamstrung by the regulatory regime from rolling out UMTS900 until a later date when they are presented with an opportunity to top-up their 900MHz spectrum holding to 2x10MHz. The ability to rollout UMTS in the 900MHz band must be implemented in a manner that is equitable to all parties and supportive of maintain a competitive playing field.

Our points of concern and principle discussed in detail in our response to ComReg 09/99 apply equally to the 1800MHz band and we refer ComReg further to this submission in this respect. ComReg's proposals to undertake full band auctions as a remedy to licence expiry undermines the promotion of investment, will likely diminish competition, will create negative impacts on consumers, and is contrary to the legitimate expectations of existing licensees. Furthermore all licences arising from the current consultation process must be established with clear rights of renewal or, preferably, an indefinite duration.

The answers provided below are without prejudice to Meteor's fundamental position that any solution requiring compulsory release of spectrum by existing licensees and an auction for the assignment of spectrum in the 900 MHz and 1800MHz bands based on arbitrary licence expiry dates that bear no relationship to the ongoing efficient use of the spectrum, would be unreasonable, disproportionate, and discriminatory and run contrary to the obligations of ComReg as set out in section 12 of the Communications Regulation Act, 2002 as amended to encourage efficient investment in infrastructure and promote innovation and to encourage the efficient use of radio frequencies.

2 Licensing must take place within the wider consideration of how best to use spectrum

The licences to be issued will determine how mobile networks and services are to be provided until at least 2030. It is accordingly essential that to the extent possible the licensing process and the licence conditions take account of forthcoming and other predictable developments in the provision of communications services, including from a regulatory and legal viewpoint. Unfortunately, to date, the focus of the debate has been on the imminent expiry of the GSM900 licences of Vodafone and O2 and as a result, consideration of the broader spectrum regime reform, and its implications on the licences to be issued, has been neglected to a large extent.

If indeed *“ComReg is recognised internationally as an innovator in the use of radio spectrum and, through its previous actions in this domain, how the management of radio spectrum can drive innovation”*¹, then it ought to review its approach and seek as part of this licensing process, in accordance with *“the philosophy underpin[ning] much of ComReg’s approach to spectrum management”*, to *“creat[e] a regulatory environment supportive of innovation in new electronic communications services”*. This ComReg has recognised *“is critical in positioning Ireland to realise the benefits of a vibrant telecommunications industry.”*²

eircom Group submits that before any final decision is reached by ComReg in terms of the licence conditions and the award process, the following issues, which have been overlooked to date, require consideration.

The first concerns the Better Regulation Directive³ that is required to be transposed shortly into national legislation. The Better Regulation Directive sets out the principle that NRAs may allow spectrum users to transfer their usage rights to a third party, which will allow spectrum valuation by the market. Article 9B of the Framework Directive as amended requires Member States to ensure that undertakings may transfer or lease spectrum in bands to be specified by the European Commission. It also affords Member States the opportunity to make provisions in other bands for the transfer and lease of spectrum between undertakings in accordance with national procedures.

Ireland cannot maintain any competitive edge as an innovator in spectrum regulation and spectrum use in respect of wireless broadband if spectrum trading rights are not enshrined in licences.

Trading rights are only one aspect of the liberalisation of spectrum rights and the introduction of further flexibility in spectrum management. In its recent proposals to the Parliament and Council, the European Commission has emphasised the need for flexibility in legislation, proposing to require Member States to *“maximise flexibility in the use of spectrum, to promote innovation and investment, through the application of the principles of technology and service neutrality, the opening of spectrum to new services, and the possibility to trade spectrum rights”*⁴ but also to

¹ ComReg 08/50 “Spectrum Management Strategy Statement: 2008-2010”

² http://www.comreg.ie/radio_spectrum/innovation.496.409.html

³ Directive 2009/140/EC

⁴ Article 3(b) “Proposal for a Decision of the European Parliament and of the Council establishing the first radio spectrum policy programme”

“foster, in cooperation with the Commission, the collective use of spectrum as well as shared use of spectrum.”⁵

eircom Group strongly believes that every effort should be made to establish the most flexible rights as possible in advance of the issuance of any licence in order to maximize the societal and economic potential for the spectrum and to provide a stable and predictable regulatory environment against which investment decisions can be taken. ComReg’s current proposal to introduce liberalisation in the form of technology and service neutrality only in new licences awarded at auction is a cause of significant concern.

It is essential that the liberalisation of spectrum rights and the licensing of spectrum bands be approached in the wider context of the potential of the digital dividend, in particular as a result of the freeing up of the 800 MHz band, which cannot be reduced to the perspective of mobile services and operators.⁶ In particular, a fundamental aspect of spectrum usage flexibility and liberalisation is the relevance of spectrum to broadband access.

“The Digital Dividend provides a once in a lifetime opportunity. The Digital Dividend offers real opportunities for wireless innovation in relation to a range of different services.”⁷ . It is important, as a nation, that we get it right!

There is little doubt in this context during the currency of the licences to be issued, further liberalisation of rights will be required to meet national and EU aspirations to stimulate economic recovery.

In its Digital Agenda for Europe, the European Commission has emphasised that *“More needs to be done to ensure the roll-out and take-up of broadband for all, at increasing speeds, through both fixed and wireless technologies, and to facilitate investment in the new very fast open and competitive internet networks that will be the arteries of a future economy. Our action needs to be focused on providing the right incentives to stimulate private investment, complemented by carefully targeted public investments, without re-monopolising our networks, as well as improving spectrum allocation.”⁸* The European Commission placed broadband access at the heart of the future economy, noting that *“The future economy will be a network-based knowledge economy with the internet at its centre. Europe needs widely available and competitively-priced fast and ultra fast internet access. The Europe 2020 Strategy has underlined the importance of broadband deployment to promote social inclusion and competitiveness in the EU....To reach these ambitious targets it is necessary to develop a comprehensive policy, based on a mix of technologies, focusing on two parallel goals: on the one hand, to guarantee universal broadband coverage (combining fixed and wireless) with internet speeds gradually increasing up to 30 Mbps and above and over time to foster the*

⁵ Article 4(1) “Proposal for a Decision of the European Parliament and of the Council establishing the first radio spectrum policy programme”

⁶ We welcome the submission of ESB Networks outlining an alternative use of sub 1GHz spectrum. ESB Networks puts forward a range of potential societal benefits in support of its proposal and as such use of sub 1GHz spectrum in support of ‘smart’ electricity initiatives is a relevant consideration. However for the reasons explained further below, we do not believe exclusive reservation of 2x5MHz solely for this purpose is an efficient use of the scarce spectrum resource.

⁷ Section 4.3.4: “Technology actions to support the Smart Economy”

⁸ Page 6: “A Digital Agenda for Europe” COM(2010)245

deployment and take-up of next generation access networks (NGA) in a large part of the EU territory, allowing ultra fast internet connections above 100 Mbps.⁹

In this context, the European Commission has recognised that “Wireless (terrestrial and satellite) broadband can play a key role to ensure coverage of all areas including remote and rural regions. The central problem to develop wireless broadband networks today is access to radio spectrum. Mobile internet users already experience congestion on networks because of inefficient use of radio spectrum. In addition to frustrating users, innovation in markets for new technologies is stifled, affecting € 250 billion of activity annually. A forward-looking European spectrum policy should, while accommodating broadcasting, promote efficient spectrum management, by mandating the use of certain digital dividend frequencies for wireless broadband by a fixed future date, by ensuring additional flexibility (also allowing spectrum trading) and by supporting competition and innovation.”¹⁰

That “Broadband is a key enabling infrastructure for the knowledge-intensive services activities on which future prosperity will increasingly depend”, and wireless spectrum a key enabler to “ensure continued upgrading of our broadband quality and coverage” have both been recognized by the Irish Government and the objective set, in the realm of spectrum regulation, to “promote Ireland as a world leader in the flexible use of the wireless spectrum including the creation of new ‘ubiquitous’ broadband connectivity zones”¹¹

Throughout its consultations, ComReg however appears to have given no consideration to the long-term impact of its proposals in terms of the best use of the spectrum bands under consideration for Ireland, and consequences for any licence to be issued that this may have, in terms of spectrum trading, but also spectrum sharing and spectrum pooling.

eircom Group believes that the spectrum under consideration has the potential to offer transformative opportunities in the provision of rural services that ComReg has not considered to date. The challenges of providing fast rural broadband are particularly acute in Ireland, and as metropolitan Ireland steadily moves towards fibre based broadband the country is facing an ever widening digital divide. The digital dividend presents a once in a generation opportunity to use the latest wireless technologies to bring next generation broadband to rural Ireland and significantly close the current, and future, divide. ComReg’s current approach to the allocation of spectrum will not allow Ireland to benefit from this opportunity.

The most rural 25% of Irish population has poor access to broadband. The vast majority of the rural population is served on either eircom’s aging overhead plant or through the National Broadband Scheme (NBS) – with all the technical limitations relative to fixed next generation broadband associated with 3G technology. It is neither technically feasible, nor economically rational to believe, that either of these platforms will ever provide next generation broadband services. The only manner in which realistically next generation broadband will be accessed by the last quarter of the population is through an ambitious deployment of LTE infrastructure utilising substantial quantities of the 800MHz spectrum.

⁹ Page 19: “A Digital Agenda for Europe” COM(2010)245

¹⁰ Page 19: “A Digital Agenda for Europe” COM(2010)245

¹¹ Page 96/97: “Building Ireland’s Smart Economy: a framework for sustainable economic recovery”

The current commercial models envisaged by ComReg for the utilisation of spectrum will not produce the desirable public policy outcome in relation to rural broadband. If the spectrum is allocated on the current basis it will lead to the 800MHz spectrum being used by several rival operators to create overlapping and duplicate networks to 50% - 75% of the population in areas already well served by existing broadband infrastructure, while leaving those most in need of high speed broadband unserved.

The economics for building a new broadband wireless network to address the digital divide are such that it is unfeasible to duplicate infrastructures. eircom Group's analysis suggests that building a broadband rural network, even using LTE in the 800MHz band, displays extremely challenging economics.¹² eircom Group believes that the best interests of rural users in particular could be reconciled with a competitive market through the development across the entire telecommunications industry of a single rural network with the requisite coverage and capability providing equal access for all service providers.

This new entity, however it is structured, would require access to very substantial quantities of spectrum. LTE networks that have access to 800MHz spectrum can provide both cost-effective network coverage and peak download speeds comparable with the fastest broadband speeds available in the market today. However, replicating the broadband experience enjoyed by customers on fixed networks through wireless technology is rapidly constrained, even in very rural areas, by the sustainable throughput available to users at busy times when wireless cells are heavily loaded. In order to maintain high levels of throughput, large quantities of spectrum are required to provide sufficient capacity¹³.

If spectrum is placed in the market in the manner proposed by ComReg, namely a competitive auction mechanism, there is a high probability that a sub-optimal outcome will result, with high speed mobile broadband services being concentrated and limited to urban areas as multiple operators find it uneconomic to roll-out to less populated areas on their own.

The speed and capacity of next generation mobile broadband services using technologies such as LTE is directly related to carrier bandwidth size. A plausible outcome from auctioning the 800MHz band is that three operators have access to 2x10MHz each. The table below illustrates anticipated performance by bandwidth size¹⁴.

¹² eircom Group would be happy to share the analysis and reports prepared for eircom by Analysys Mason on Rural LTE.

¹³ eircom Group has developed a "proof of concept" radio network design utilising a combination of 800MHz spectrum for coverage augmented by 1800MHz spectrum to provide a capacity layer. We would happily share this design work with ComReg if that would be of assistance.

¹⁴ Peak bit rates only achievable for single user in cell in optimal signal conditions. 2x2MIMO assumed on downlink. Average downlink spectral efficiency assumed approx. 1.5 bit/s per Hz. LTE supports bandwidths up to 20MHz. LTE advanced expected to support bandwidths up to 100MHz

LTE Bandwidth (FDD)	5 MHz	10 MHz	15 MHz	20 Mhz	25 Mhz	30 Mhz
Downlink peak bit rate (Mbit/s)	37	74	110	150	187	225
Average downlink Cell capacity (Mbit/s)	7.5	15	22.5	30	37.5	45
Uplink peak bit rate (Mbit/s)	18.3	36.7	55.1	75.4	94.25	113.1
Average uplink Cell capacity (Mbit/s)	3.25	6.5	9.75	13	16.25	19.5

We can clearly observe that performance (and user experience) improves by 100% in a spectrum pooling environment (20MHz bandwidth) relative to a standalone licence (10MHz bandwidth). The potential to bridge the digital divide cannot be overlooked.

Ultimately the allocation of such a valuable national commodity as spectrum is a public policy choice that needs to balance competing imperatives. The desire to maximise auction values and to maximise coverage and capability will be in tension. However, eircom Group believes that it is essential that ComReg in the context of its consideration of the licensing of 800 MHz spectrum assesses its very significant potential to address issues of broadband access in rural areas and the best manner in which broadband coverage could be achieved in the context of licensing and the liberalisation of spectrum rights. eircom Group calls on ComReg to engage in wider consultation involving the Minister in charge of communications, the Government, all communications services and network operators, as well as rural communities before proceeding further.

Q.1. Do you agree with ComReg's proposal to use a Frequency Division Duplex (FDD) arrangement with a 2 x 5 MHz Block size for the 1800 MHz band? Please provide reasons for your view.

eircom Group agrees. This will ensure that Ireland enjoys the economic benefits associated with the pan-European harmonised exploitation of this band.

We note that the European Commission issued a mandate to CEPT on the technical conditions for allowing LTE and possibly other technologies within the bands 880-915 MHz / 925-960 MHz and 1710-1785 MHz / 1805-1880 MHz (900/1800 MHz bands). This EC Mandate encompassed a task to study the technical conditions under which LTE and other can be deployed in the 900/1800 MHz bands.

CEPT report 40 was issued in the response to this mandate and it clearly assumed that FDD will be used for LTE and other technologies in both the 900 and 1800 MHz band.

Q.2. Do you agree with ComReg's proposal to set an overall cap of 2 x 50 MHz for the joint award including the 2 x 20 MHz sub-1GHz spectrum cap that was proposed in Consultation 10/71? Please provide reasons for your view.

eircom Group does not agree with the proposal to set an overall cap of 2x50MHz. The proposed cap is excessive and creates an unacceptable risk to the future competitive functioning of the market. ComReg's proposed cap could result in a highly concentrated outcome in the 1800MHz band and could, absent consideration of new entrants, result in one of the four existing MNOs securing access to only 2x5MHz of sub 1 Ghz spectrum with no access to the 1800MHz band. Such an outcome will serve to the detriment of consumers.

We believe ComReg's proposal to unfairly favour the large established operators O2 and Vodafone, both part of well financed international groups, affording them the opportunity to squeeze out the competitive tension created by smaller operators and potential new entrants. The proposed cap may artificially stimulate competition at the auction; it also sacrifices the long term competitive functioning of the market.

We agree with ComReg's proposal for a 2 x 20 MHz cap on spectrum in the sub 1 GHz bands and to prevent high asymmetry in overall spectrum holdings, we believe that a cap of 2x20MHz should also be maintained in respect of the 1800MHz band as noted in our response to ComReg 10/71.

eircom Group recognises that given the substitutability of spectrum between high and low bands, an overall spectrum cap is an alternative means of preventing high asymmetry in spectrum holdings across both bands and is not opposed to an overall cap as such. However, such a cap must be set at a level that facilitates competition between bidders in the auction but does not prevent all existing operators from gaining a significant amount of spectrum in the

higher bands in order to continue to offer competitive propositions. The overall 2x50MHz proposed by ComReg will do neither.

In this regard we refer to the advice presented by DotEcon in its support to Consultation 10/71 which states in relation to considering a liberal 2 x 25 MHz cap for sub 1 GHz spectrum: “... it is debatable whether a spectrum cap of 2x25MHz is simply too large to contemplate given asymmetries amongst spectrum winners that would be possible. As an extreme example, there would be a possibility that two bidders would win 2x25MHz each. In this scenario, even where both of these were existing mobile operators, this would likely mean that the two other existing operators had only 2x15MHz between them, or indeed that one operator had 2x15MHz and the other secured no spectrum under 1GHz. Given the cost efficiencies linked to the provision of 3G services using sub-1GHz spectrum, it is likely that such a result would substantially damage the ability of such an operator to compete effectively in the market for 3G services over the coming years. This is in addition to the disruption that might result from an existing 900MHz operator not obtaining rights to spectrum usage in this band for serving existing GSM customers. While this is a low probability outcome its potential effect on competition is sufficiently large that ComReg may wish to preclude this possibility.”¹⁵

We note that with an overall spectrum cap of 2 x 50 MHz, it is possible that an existing operator could come out of the auction with only 2 x 5 MHz in total of spectrum from the 800, 900 and 1800 MHz bands. eircom contends that an outcome where one of the existing operators gains only 2 x 5 MHz from the 800, 900 and 1800 MHz would have a worse effect on competition than the scenario presented by DotEcon in its advice to Consultation 10/71 and that ComReg’s approach to the setting of spectrum caps is unconvincing and inconsistent.

Recognising the flexibility that is afforded by establishing an overall cap and respecting the need to avoid unnecessary risk of distorting competition in mobile markets, the overall cap should therefore be set at 2x40MHz, in combination with a sub 1GHz cap of 2x20MHz, for the duration of the auction.

Q.3. Do you agree with ComReg’s proposal to use two temporal lots as proposed for the sub-1GHz spectrum, namely early 2013 – 12th July 2015 and 13th July 2015 – 12th July 2030, in the joint award including the 1800 MHz band? Please give reasons for your view.

eircom Group considers that the matters raised in questions 3, 4 and 8 need to be considered together.

Question 8 addresses the principle of early liberalisation. We agree with ComReg’s proposal that existing licensees should be afforded an early liberalisation option. Operators are best placed to determine the evolution of technology within their spectrum holdings and as such flexibility of this nature is welcome in principle. However ComReg’s proposals to use two temporal lots (question 3) and combined with its ambiguous approach to the issuing of

¹⁵ DotEcon Award of liberalised spectrum in the 900 MHz and other bands. ComReg Doc 10/71a. Paragraph 123, page p29.

temporary licences to Vodafone and O2 (question 4) appear to be at odds with affording existing licensees flexibility.

We agree with the proposal to use two temporal lots for the reasons set out in the consultation document. The introduction of a third temporal lot of six and a half months duration would merely serve to add unnecessary complexity to the award process. However, as a matter of principle, if a clear policy is not established regarding the six and a half month period between the expiry of the O2 / Vodafone 1800MHz licences and the commencement of second time slice (T2) licences those operators will be required to acquire licences in the first time slice (T1) if they wish to ensure continuity of service, assuming either operator has intentions to stay in the band. Existing operators with unexpired licences must be given the flexibility to choose between continued enjoyment of their existing rights or voluntary early liberalisation. The flexibility afforded by early liberalisation is extremely welcome for operators to avail of voluntarily but it should not be imposed by creating an artificial scarcity of spectrum for a six and a half month period.

Q.4. Do you agree with ComReg’s approach in relation to the period between the expiry of Vodafone and O2’s respective GSM 1800 MHz licences and the proposed commencement date of licences for the second “time slice” in the 1800 MHz band? Please provide reasons for your view.

Please refer to our response to question 3.

Q.5. Do you agree with ComReg’s view that there are important benefits to be obtained from designing the auction to ensure that new licences will comprise of contiguous spectrum assignments in the first time slice? Please provide reasons for your view.

We agree it may be beneficial to design the auction to promote contiguous assignments.

Q.6. Do you agree with ComReg’s proposal to introduce a “full assignment round” into the first time slice of the 900 MHz and 1800 MHz bands? Please give reasons for your view.

eircom Group agrees with the ComReg proposal to apply the “full assignment round” approach provided that all relocation costs associated with liberalised licences are adequately compensated.

To maintain non-liberalised lots in their present locations would potentially result in non-contiguous lots for some assignments in the first time slice. This is undesirable since it would reduce the utility of spectrum assignments so affected and reduce the value of larger assignments disproportionately since these are more likely to be affected.¹⁶ The problem is

¹⁶ We note that bids for 2 x 10 MHz and 2 x 15 MHz in the 900 MHz band can be assured contiguity; however a bid for 2 x 20 MHz could not be contiguous in the first time slice if eircom Group’s non-liberalised lots remained in their current location.

exacerbated at 1800 MHz where non-liberalised lots centrally located within the band could also compromise contiguous assignments for others and create incentives for strategic behaviour.

The two options presented by ComReg are considered below:

“All or nothing” liberalisation approach

The “All or nothing liberalisation” approach requires each current licensee to either liberalise its entire spectrum within a band or none at all (in which case its entire current assignment in T1 would stay as located). The contiguity of other assignments then depends on whether they are able to pack around the incumbent non-liberalised licences. We note that ComReg does not indicate whether other additional liberalised lots won by non-liberalised spectrum holders would be placed adjacent to non-liberalised spectrum so as to remain contiguous.

Although the All or nothing liberalisation approach has potential to reduce opportunities for strategic behaviour, eircom Group believes that the approach has potential to reduce auction efficiency because:

- Some fragmentation of assignments may still occur
- Partial liberalisation would not be allowed. Bidders ideally wishing to partially liberalise their currently holdings would need to distribute their willingness to pay to liberalise across all their current lots or decline to liberalise any lots at all. These suboptimal choices have potential to distort the outcome of the auction.

Full assignment round approach

eircom Group believes that under the “Full assignment round” approach:

- Existing licence holders would potentially be required to relocate their assignments. In doing so they would incur additional costs.
- Such costs are not simply brought forward with no net loss as implied in 10/105¹⁷ since:
 - o Future costs are subject to the time value of money. Bringing relocation costs forward by 2.5 years would effectively increase relocation costs by 22% in real terms.¹⁸
 - o Bidders may not gain the same spectrum in the second time slice in which case the full relocation cost is additional
- If bidders are required to incur any of the costs of relocation then they would need to devalue their primary bids by this amount. Bidders not faced with this additional cost would have a bidding advantage which would lead to an inefficient outcome at the end of main stage of the auction.

ComReg’s proposal to provide compensation for relocation costs alleviates these concerns, provided that such compensation covers the full costs of relocation. If relocations costs are not fully compensated then the Full assignment round approach would introduce inefficiency into the auction process.

¹⁷ ComReg, “Inclusion of the 1800MHz band into the proposed joint award of the 800 and 900MHz spectrum”, 15 December 2010, 10/105, page 28.

¹⁸ The 22% is calculated using a 10.2% discount rate (i.e. $1 - 1/[1 + 0.102]^{2.5}$)

Q.7. Do you consider it appropriate that ComReg would provide compensation to a GSM licensee, in either the 900 MHz or 1800 MHz band, for required relocation costs that otherwise would have been avoided? Please give reasons for your view.

For the reasons set out in response to question 6 we believe that compensation must be provided for the full cost of any, and all frequency relocations / adjustments required of existing licensees. Such compensation should be paid from auction proceeds.

Q.8. Do you agree with ComReg’s proposal to adopt an early liberalisation approach for both the 900 MHz and 1800 MHz bands? Please provide reasons for your view.

Please see our response to question 3.

Q.9. Do you agree with ComReg’s “rebate” proposal for 900 MHz and 1800 MHz GSM licences? Please provide reasons for your view.

ComReg’s preliminary view is that it would be appropriate to issue a rebate for the residual time remaining on a GSM licence if an operator were to opt for early liberalisation, and that this should apply to both 900MHz and 1800MHz GSM licences. ComReg states its view that the calculation of the proposed rebate should be on the basis of the methodology as set out in Consultation 09/99. Under this approach, ComReg would determine the rebates based on the value of the original access fee indexed to inflation for the proportion of licence forgone.¹⁹ This approach appears to take no account of our response to Question 3 of ComReg 09/99, and of the factors that we had submitted must be considered in the calculation of a rebate. In this regard eircom Group reiterates its views on the matter and submits further as follows:

eircom Group considers that it is appropriate to issue a rebate for the residual time remaining on a GSM licence if an operator were to opt for early liberalisation, and that this should apply to both 900 MHz and 1800 MHz GSM licences. However, ComReg’s proposed approach significantly understates the value of the spectrum to eircom Group and does not allow for a reasonable return on eircom Group’s investment in spectrum. This is because the allowance for inflation converts nominal spectrum fees from 2000 into 2010 terms, but does not allow for the expected return on investment over the time period. eircom Group notes that ComReg’s approach is inconsistent with the use the cost of capital to set reserve fees between time slices and the conversion of 50% of the reserve price into annual Spectrum Usage Fees (SUFs).²⁰

ComReg’s proposed approach does not take account of eircom Group’s investment in spectrum. In essence, eircom Group purchased spectrum based on the expected returns over the 15 year licence period. The licence fee represented an investment by eircom Group and like any investment, eircom Group expected to earn returns from this investment. ComReg’s proposed approach to calculating compensation is to allow eircom Group only a zero real return (i.e. compensation for inflation only).

¹⁹ ComReg, “Inclusion of the 1800MHz band into the proposed joint award of the 800 and 900MHz spectrum”, 15 December 2010, 10/105, pages 33-34.

²⁰ ComReg, “Inclusion of the 1800MHz band into the proposed joint award of the 800 and 900MHz spectrum”, 15 December 2010, 10/105, page 36.

There is a sound basis for arguing that operators have reasonable expectation of higher returns in the last two years of the licence compared with the earlier years of licence, therefore forgoing the final two years could result in greater loss than a pro rata calculation suggests. As ComReg notes in Consultation 10/71:

“Moreover, this additional period would be at the end of the investment cycle where it is quite plausible that the rate of return on this additional period would be considerably higher than in the earlier stages of the original investment cycle (as initial and ongoing capital investments are more likely to have been recouped)”

Given the complexity and subjectivity of undertaking a full loss of profits calculation, eircom Group believes that it is reasonable to use the cost of capital as a proxy. Indexing with the cost of capital provides a conservative estimate of the impact on operators’ loss of the final period of licence. Based on a cost of capital of 10.2% (as used by ComReg in reserve and SUF calculations), the proposed rebate should be calculated for eircom Group as detailed in Table 1.

Table 1: Calculation of rebate for eircom Group

Operator	Spectrum Band & Assignment Start Date	Original access fees paid (IR£)	Proportion of licence forgone (years)	Proportion of access fee forgone (€1= IR£0.787564)	Cost of capital adjustment from start date of GSM licence to November 2010	Proposed rebate
Eircom Group	900MHz 2x7.5MHz July 2000	£3.75m	2.5/15	€ 793,586	270.6%	€2,147,610
Eircom Group	1800 MHz 2x14.4 MHz July 2000	£7.5m	2.5/15	€1,587,173	270.6%	€4,295,222

By contrast, ComReg’s proposed approach will under-compensate eircom Group (and other operators with licences subject to early liberalisation) as set out in

Table 2.

Table 2: Loss to eircom Group from ComReg proposed compensation

Spectrum Band & Assignment Start Date	ComReg proposed compensation	Eircom Group proposed compensation	Loss to eircom Group
1800 MHz 2x14.4 MHz July 2000	€2,028,407	€4,295,222	€2,266,815
900MHz 2x7.5MHz July 2000	€1,014,203	€2,147,610	€1,133,407
Total	€3,042,610	€6,442,832	€3,400,222

Likely impact of ComReg's approach

eircom Group believes that ComReg's approach to the calculation of the rebate is likely to adversely impact the efficiency of the auction process for 800 MHz, 900 MHz and 1800MHz spectrum and the broader development of the mobile market.

If eircom Group liberalises its spectrum early, it will then be bidding to buy the spectrum based on the expected returns from the use of the spectrum in the first time slice. This will be based on the expected returns over this period i.e. based on expected net revenues discounted at eircom Group cost of capital. This means that eircom Group will receive compensation for early surrender of the licences based on the rate of inflation, but have to buy spectrum based on expected returns subject to the cost of capital. In effect, ComReg's proposed approach introduces a bias in eircom Group's decision about whether to surrender spectrum for early liberalisation or to retain spectrum on an unliberalised basis. This bias will distort the values that operators with existing 900 and 1800MHz spectrum will be prepared to buy and could result in inefficient auction outcomes.

The consequences that will follow from ComReg's proposed approach in terms of the payoffs available to eircom Group from liberalisation will influence the decision of eircom Group to liberalise its spectrum or not.

eircom Group notes further that ComReg's proposed approach would unjustifiably affect eircom Group in terms of the compensation available to it to a significantly greater extent than other operators and as such is discriminatory. This is because eircom Group has greater amounts of spectrum subject to potential liberalisation as compared to other operators. This means that eircom Group will lose more from the proposed low levels of compensation than other operators. eircom Group submits in this regard that any approach followed by ComReg must ensure the equitable treatment of all operators concerned and not affect any one operator more than others. That this principle is upheld in the context of an auction is all the more important that any difference in treatment between operators will adversely impact on the outcome of the auction and the ability of the operator concerned to compete with other operators in the mobile market.

It appears to eircom Group that ComReg's proposed approach is in this respect a classic case of regulatory opportunism, ComReg proposing to change the term of the licence without offering eircom Group full compensation for the value of the licence in the final 2.5 years. Regulatory opportunism occurs where regulators are able to set prices for outputs relating to sunk investment, i.e., a regulator changes its approach to regulation following investment to set prices below levels for which investment is profitable. However, as the investment is sunk, the regulated firm will continue to produce provided the price is above marginal cost. In this case, ComReg has sold spectrum on the basis of the opportunity to earn returns over the full licence period. Following the purchase of the licence, it is now proposing to truncate the term of the licence but only offering to compensate the holder of the licence for the cost of the licence fee. This is an ex post reduction in the opportunity to earn returns from the licence, as it is clear that eircom Group would earn returns greater than the cost of the licence in the final 2.5 years of the licence.

Regulatory opportunism increases the regulatory risk associated with the future sale of spectrum licences and other regulation by ComReg. An increase in regulatory risk in turn

increases uncertainty about returns from future licence purchases (as operators are now aware of the risk of early termination without adequate compensation) and other telecommunications investment. This will adversely impact willingness to pay for future licences and may undermine investment in the telecommunications sector.

Q. 10. Do you agree with the proposed methodology for setting licence fees for 1800 MHz spectrum? Do you agree with the proposed minimum price for 1800 MHz spectrum to be set at 50% of the proposed minimum price for sub-1GHz spectrum, split 50/50 between an upfront reserve price, and annual spectrum usage fees? Please provide reasons for your view.

ComReg proposes to set minimum fees for 1800 MHz calculated at 50% of the sub 1 GHz spectrum fee per MHz. ComReg proposes to set a minimum price of €25m for a 2 x 5 MHz 15 year sub 1 GHz licence. This was based on DotEcon's benchmarking which indicated a range of €18m-€26m per 2 x 5 MHz block as a conservative lower bound on value of sub 1 GHz spectrum. The 50% relativity with sub 1 GHz spectrum was based on DotEcon's analysis of benchmark information which suggested that 1800 MHz spectrum has a value per MHz in the range of 45% to 60% of sub 1 GHz spectrum.

Previous eircom Group submissions have pointed out that ComReg's approach results in a minimum price which is excessive relative to international auction results, that the dataset covered a time period which does not reflect the current depressed state of the Irish economy and reduced operator revenues, and that DotEcon's econometric analysis gives more reliable benchmarks than simple averages.

In eircom Group's response to ComReg 09/99 it was pointed out that the benchmark chosen was high by international standards when a like-for-like comparison is considered, that the benchmark is inherently uncertain given the range of values and dependence on circumstances and expectations at the time of the auction, and that given the inherent uncertainty caution is justified in setting the reserve price. Specifically a 50% discount on estimated value was proposed in setting the reserve price.

In its response to 10/71, eircom Group noted that since the previous consultation three conditions have changed which imply that spectrum value may be lower and that the arguments for a conservative approach in setting the reserve price are stronger than they were previously:

- The outlook for GDP, and more particularly real disposable income growth (given the increase in the national debt burden and credit rating downgrade which in turn imply a greater share of national income required to pay interest and repay debt), has deteriorated with the announced cost of the IMF/EU bailout. This might be expected to have an adverse impact on the expected value of spectrum in Ireland;
- The supply of spectrum has increased with clarification regarding analogue TV switch off and the proposed combined auction. Expected spectrum supply is therefore greater and uncertainty over value is greater implying a lower spectrum valuation and greater grounds for caution;
- The auction format in relation to caps and the move to a second price format has alleviated concern in relation to tacit collusion, thereby greatly reducing the argument for a high reserve price to prevent tacit collusion.

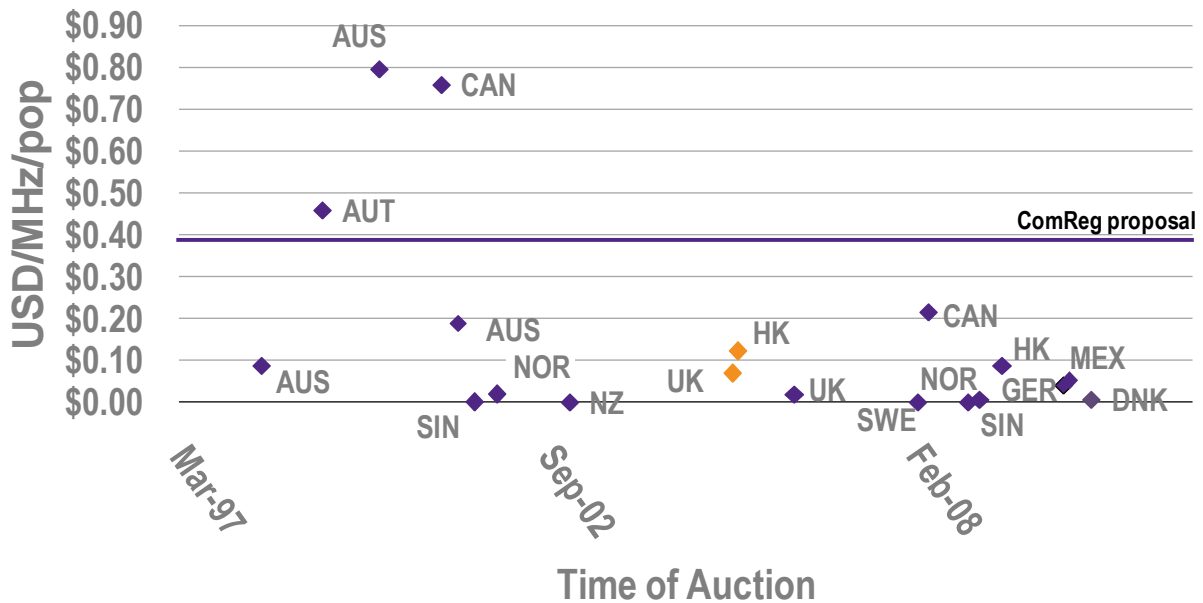
In considering ComReg’s proposed approach to setting minimum prices for 1800MHz spectrum, eircom Group has considered international benchmarking evidence on the likely relativity of 1800MHz to sub 1 GHz spectrum and evidence on the appropriate level of minimum pricing for 1800MHz.

Outcomes of 1800MHz auctions

eircom Group has reviewed the outcomes of 1800MHz auctions to compare these outcomes with ComReg’s proposed reserve price. eircom Group notes the comments by Dotecon that auction values for 1800MHz are likely to overstate the value of the spectrum, given their approach to estimation of sub 1 GHz values. We have undertaken the analysis as a sense check on ComReg’s conclusions about the appropriate reserve price. The following figure compares the outcomes of international 1800MHz auctions with the proposed reserve price.²¹ The reserve price for 1800MHz is converted to reserve price equivalent to USD0.385/MHz/pop.²²

Figure 1: International 1800/1900 MHz auctions.

Value/MHz/pop of international 1800/1900MHz auctions in USD



Source: Plum Consulting, Regulator websites

It is clear that the proposed reserve price for 1800MHz spectrum is well above all recent auction outcomes and is below only three of the data points, which all coincided with the dotcom bubble. Based on this data, there is a significant risk that ComReg’s reserve price for 1800 MHz will be

²¹ Countries include: Austria, Canada, Germany, New Zealand, Norway, Norway, Singapore, Singapore, Sweden, UK and Hong Kong. US 2001 auction data is excluded as this is an extreme outlier affected by dotcom bubble.

²² Based on an exchange rate of 1.41 and Irish population of 4,459,300, consistent with previous eircom Group submission.

in excess of the underlying spectrum value and the auction will fail to clear all available spectrum. This clearly indicates that ComReg’s proposed minimum prices for both the 1800 MHz spectrum and sub 1 GHz spectrum are too high.

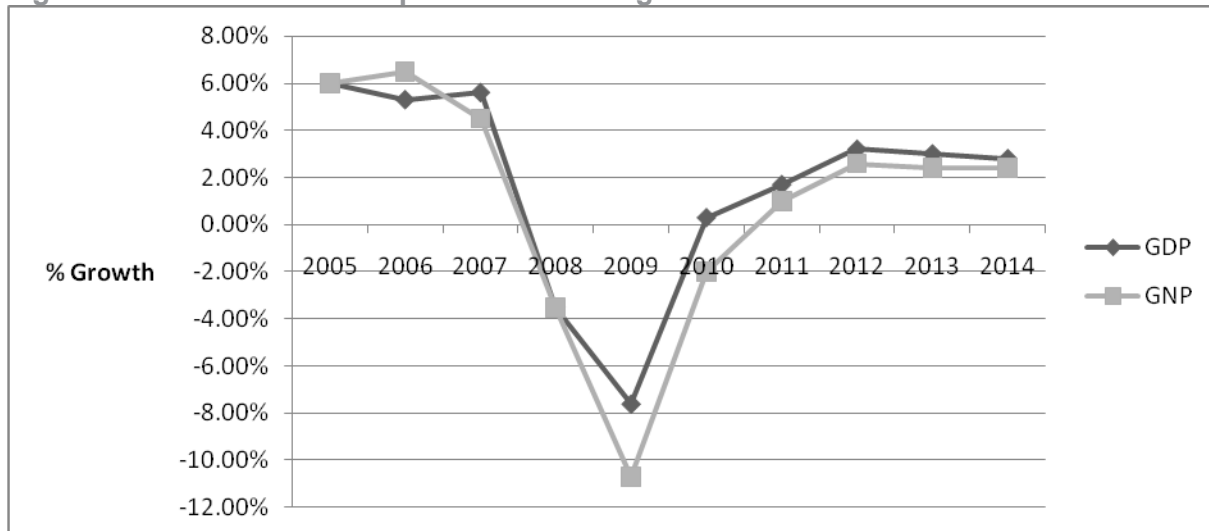
Economic outlook and spectrum demand

ComReg noted in its 3rd Quarter Key Data Report, that over the last 6 years changes in communications revenues have generally mirrored economic output (in terms of GNP)²³. The demand for 1800MHz spectrum (like other spectrum) will be influenced by the state of the economy, expected future economic growth and market revenues. In a recent publication, the Irish Department of Finance noted that:

“The level of GDP in 2010 will be some 11% below and the level of GNP some 15% below their respective levels of 2007 in real terms.”²⁴

The demand for spectrum will be affected both by this huge fall in economic output and the lower expected growth in the future. Figure 2 illustrates Ireland’s rapid economic growth prior to the economic crisis, the recession and the much lower growth expected in the future. GNP growth in the period for 2011-14 lies just above 2%, in contrast to a growth rate of around 6% prior to the crisis.

Figure 2: Irish economic output and forecast growth

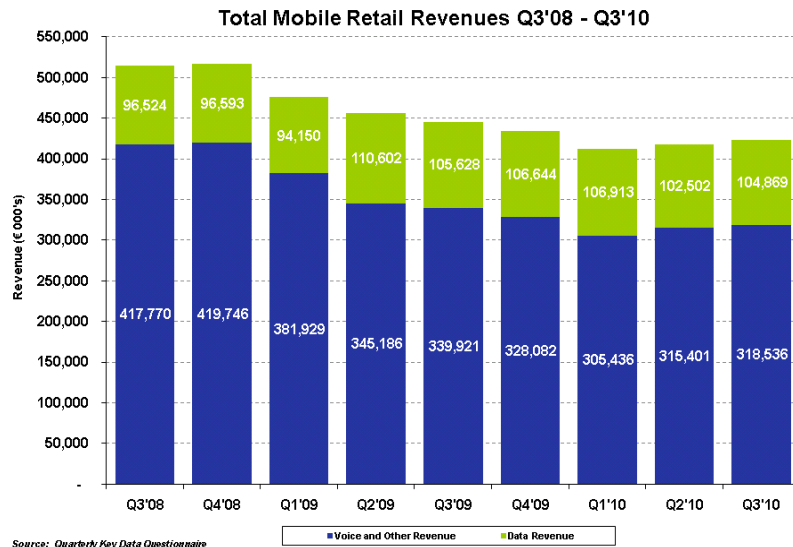


Source: Irish Department of Finance Monthly Economic Bulletin, January 2011 and Irish Budget Economic and Fiscal Outlook, November 2010.

The impact of the recession on the mobile market is illustrated in the ComReg data below. Revenue has fallen from around €515million in Q4 2008 to €423m in Q3 2010, a fall of around 20%. This suggests that the impact of the crisis on mobile markets may be even greater than general impact on the economy.

²³ ComReg, Quarterly Key Data Report Q3 2010, 10/106, page 10.

²⁴ Department of Finance, National Recovery Plan 2011-14, 24 November 2010.



Dotecon has attempted to take account of the reduction in GDP in their revised estimate of sub 1 GHz band value (10/71b); however, this does not take account of the larger impact of the economic crisis on GNP and the mobile market in comparison to GDP and the on-going impact of reduced growth forecast over the medium term. The crisis will have a significant on-going impact due to the slower growth rate and reduced future personal income (from increases in national debt servicing costs and increased taxes).

We note the view of ComReg’s Chairman Alex Chisholm as reported in an article of the Sunday Business Post of 23 January 2011 that “*even though the Irish economy is currently at a low point, the length of the licenses will probably mean that current economic conditions don’t dominate the pricing levels*” and that “*Besides, many of the companies likely to be interested aren’t dependent on the Irish economy for their overall financial health, so it may not be as big a factor as some might think*”. In view of the fact that the auction would be for the use of spectrum in Ireland, it is the very strong opinion of eircom Group that the reserve price must take into account of the economic conditions of Ireland regardless of the source of “financial health” of certain likely participants. In this regard, there is little doubt that the reserve price will influence the pricing levels achieved in any auction. The pricing levels to be achieved are not, and should not, be amongst ComReg’s objectives for the auction.

Balancing ComReg’s objectives for auction

ComReg outlines its objectives in setting minimum prices for 1800MHz spectrum as follows;

- i. To deter frivolous bidders without genuine business cases whose participation may prolong the auction process and waste resources;
- ii. To ensure that the administrative cost of the auction process is recovered;
- iii. To disincentivise and guard against uncompetitive auction outcomes, including that arising from anti-competitive collusive behaviour of potential bidders;
- iv. Not setting the minimum price so high that the risk of choking off efficient demand would be significant; and
- v. Ensuring the efficient use of spectrum.

It is not clear from ComReg's consultation document why ComReg believes that the minimum price it selected will assist in meeting these objectives. Indeed ComReg proposes no justification.

eircom Group is of the view that the level of the proposed reserve price is not necessary to achieve these objectives and that in fact, the level of the reserve price is so high that it will impede the achievement of the objectives pursued by ComReg. In particular, objectives (i) and (ii) can be achieved by a minimum price of much lower than the proposed €12.5m per 2 x 5 MHz for 1800 MHz spectrum, as this would still be sufficient to deter frivolous bidders and to recover the administrative costs. A lower minimum price would be consistent with objectives (iv) and (v). There remains the question as to what level of prices would be sufficient to guard against uncompetitive auction outcomes. This requires weighing up the potential expected outcomes from a competitive auction process with the high level of uncertainty about the efficient outcome and the risk of choking off efficient demand. In making this evaluation, ComReg needs to consider the likely probabilities of the outcomes and their consequences.

It is clear from the Dotecon analysis and the benchmarking above that the value of sub 1 GHz and 1800 MHz spectrum is highly uncertain. Previous outcomes suggest that a broad range of values and even Dotecon's averaging and econometric analysis produce a relatively wide range of values (€18m to €26m per 2 x 5 MHz for sub 1 GHz spectrum). There are many potential reasons for differences between countries and over time such as expected future development of mobile market, future economic growth rates, nature of competition, coverage obligations etc. It is therefore extremely difficult for ComReg to be confident that any point estimate of value is likely to be accurate.

The economic consequences of overstating the minimum price are likely to be very different from understating the minimum price. A low reserve price could result in spectrum being sold for a low price in the event that demand is low or there is collusion between bidders. Low demand might arise in circumstances where demand is highly uncertain due to holding the auction too early (i.e. before development of technical standards or high levels of uncertainty about demand). The probability of collusion will be influenced by design of auction, number of players and existing spectrum allocations. The potential economic harm from a low reserve price would result in the allocation of spectrum to a user who does not place the highest value on the spectrum (i.e. spectrum may be less well utilised than if allocated to highest value user).

ComReg has addressed timing issues by holding a joint 800/900 and 1800MHz auction. In addition, the auction will follow a number of international auctions and are therefore unlikely to be too early for participants to assess demand.

ComReg has significantly reduced the risk of collusion by the design of the auction by proposing the use of a combinatorial clock auction in conjunction with a second price algorithm. Adding the 800 MHz spectrum to the 900 MHz award and applying a 2 x 20 MHz cap also substantially reduces the possibility of tacit collusion by granting the four existing operators sufficient eligibility to bid for 80 MHz of sub 1 GHz spectrum compared to the 2 x 65 MHz available. Despite this reduced risk of anti-competitive behaviour ComReg has maintained a high reserve price for the combined 800/900 MHz auction. ComReg incorrectly justifies this by referring (in consultation 10/71, page 45) to DotEcon's advice in Section 2.1.3 of 10/71a which related to the (now superseded) design of the 900 MHz band auction. DotEcon also states later in the same section: "*The difficulties created by the fine balance of supply and likely demand would probably*

*be much reduced by the inclusion of 800MHz spectrum as this opens up a much wider range of plausible outcomes.*²⁵ The risk of tacit collusion can accordingly no longer be used as a reason for high reserve prices.

With regard to 1800MHz spectrum, we note that the possibility of tacit collusion is further reduced relative to that of sub 1 GHz spectrum. The proposed overall cap of 2 x 50 MHz grants the four existing operators sufficient eligibility to seek a total of 2 x 135 MHz compared to 2 x 75 MHz that is available at auction. With the 2 x 40 MHz overall cap proposed by eircom there still remains 2 x 95 MHz of bidding eligibility at 1800 MHz compared to the 2 x 75 MHz available and we note that this would be consistent with the level of competitiveness for lots at 800/900 MHz. This low likelihood of tacit collusion in the sub 1 GHz bands and the 1800MHz band should be taken into account when setting minimum prices.

The economic consequence of setting the reserve price too high is to choke off demand such that spectrum remains unsold at the auction. The economic consequences of a high minimum price leading to unsold spectrum are likely to be much greater than those arising from a low minimum price. Therefore in setting the level of the minimum price, ComReg should exercise caution and select a value well below the expected value of spectrum. Given the much greater adverse consequence for setting minimum prices too high and the high level of uncertainty around 1800 MHz spectrum value, ComReg should select a minimum price of no greater than 50% of a conservative estimate of the value of the spectrum (€4m to €8m).

Methodological error in calculating reserve prices for the first timeslice

We wish to draw ComReg's attention to an error in its calculation of sub 1GHz reserve prices in ComReg 10/71. ComReg's proposed reserve prices for the first timeslice are overstated as they have been calculated on the basis of four year licence period rather than a two and a half year period.

50/50 split between upfront reserve price and annual SUF

eircom Group's position on this issue remains as previously set out in responses to the 09/99 and 10/71 consultations. In the context of an auction process, there can be merit in establishing reserve prices and spectrum usage fee (SUFs) price levels at 50% of the present value of minimum prices, subject to the development of a satisfactory deferral option (as discussed below). A balance needs to be struck between discouraging frivolous and/or speculative participation in an auction and facilitating near term investment in infrastructure development.

Deferral options

ComReg (09//99) proposed to allow operators to defer up to 50% of any excess over reserve price for up to 3 years at an interest rate of 12.0% plus indexation to inflation. ComReg did not discuss a deferral option in 10/105. eircom Group believes that the inclusion of 1800MHz spectrum in the auction increases the rationale for including a deferral option in the auction, as the capital required to purchase spectrum has increased. As eircom Group has previously submitted (in response to 09/99), we believe that a deferral option should be included in the auction, given the implications of the economic crisis for a company's ability to raise finance.

²⁵ DotEcon Award of liberalised spectrum in the 900 MHz and other bands. ComReg Doc 10/71a. Paragraph 26, page 7.

eircom Group previously outlined an approach whereby ComReg could use a pre-qualification process to deter frivolous participation in the auction process and that this would mitigate the need to impose a higher upfront auction fee.

eircom Group considers that the proposed interest rate of 12.0% is unnecessarily high and does not represent a reasonable assessment of the default risk. The appropriate interest rate should be based on the cost of debt in the regulated cost of capital, as deferred payment is a form of debt finance to market participants. The cost of debt, as estimated by ComReg is 6.9% (08/35). It is inappropriate to take account of the cost of equity in the estimate of the appropriate interest rate, as ComReg is not taking an equity type risk in offering the deferral option.

ComReg overstates the risk of default in setting the interest rate at 12.0%. This is because ComReg has a high level of protection against default due to the payment of 50% of the price upfront. This means in the event of default by a party on payment of the deferred amount, ComReg would regain ownership of the spectrum. The cost of default to the spectrum buyer is therefore very high and is likely to be avoided if at all possible. Secondly, if default did occur then ComReg would be able to resell the asset, almost certainly for an amount greater than 50% of its original selling price. For example, default at the end of the first year of the licence means that ComReg could auction the remaining term of the licence to other parties. Provided the resale of the spectrum raised more than 50% of the previous auction price, then the Irish Government would benefit financially. This means that the default risk of deferral of payment on spectrum licences is much lower than standard commercial debt and this should be reflected in the interest rate applied.

Finally, we note that a deferral option will financially benefit the Irish State, provided the interest rate on deferral is set slightly above the government debt rate.

The term of the deferral option should be extended beyond three years. There does not appear to be a compelling rationale to limit operation of the scheme to three years and the impacts of the current economic crisis are likely to extend for a considerable time period. It must be recognised that every Euro paid in upfront spectrum is a Euro forgone in near term investment in the current capital constrained environment brought on by the global economic crisis. There is a direct relationship between broadband penetration (facilitated by infrastructure investment) and GDP growth. There is an opportunity cost to the State from imposing high upfront spectrum costs.

The timing of 900MHz auction payments is discriminatory against eircom Group

ComReg proposes to hold an auction process in 2011 for 900MHz licences beyond expiry of our licence in July 2015. ComReg further proposes that upfront fees must be paid upon completion of the auction process. This presents an asymmetric opportunity to eircom Group. Our 900MHz licence is not due to expire until 2015 whereas the licences of Vodafone and O2 are due to expire imminently. Irrespective of our decision on early liberalisation ComReg's proposed approach means that Vodafone and O2 would pay upfront fees close to the time their original licences are due to expire whereas eircom Group must pay such fees nearly four years in advance of the original expiry. This unfairly discriminates against eircom Group and must be addressed by adjusting upfront fees payable by us for 900MHz spectrum downwards to account for the opportunity cost of capital.

Q.11. Do you agree with ComReg’s proposal to set a 2:1 ratio in relation to the eligibility points awarded to lots in the sub-1GHz and 1800 MHz bands, whereby twice as many eligibility points would be awarded for sub-1GHz lots as for lots in the 1800 MHz band? Please provide reasons for your view.

Where underlying value substantially deviates from the eligibility ratio chosen, the activity rule is less effective and bidders have incentives to behave strategically. eircom Group believes that the ratio of eligibility between the sub 1 GHz bands and the 1800 MHz should reflect the underlying value of the spectrum bands. This will:

- Encourage appropriate price trade-offs by bidders across the three bands
- Discourage parking of bids on low value spectrum bands to hide truthful valuations.

Please refer to our response to question 10 for our views on the relative value of spectrum bands.

Q. 12. Do you agree with ComReg’s proposal regarding coverage and roll-out obligations? Please provide reasons for your view.

eircom Group’s position in relation to coverage obligations is as set in previous submissions, to which we refer. In terms of the proposed means to measure coverage we are generally supportive of the proposal in respect of GSM and UMTS. However we do not agree with the proposed metrics in respect of LTE for the following reasons.

The logic for using Electric field strength as an indicator for acceptable GSM voice quality is clearly explained in ECC Report 118 “Monitoring methodology on GSM networks’ performance”. The coverage metrics proposed by ComReg for GSM are in line with existing licence conditions for GSM in both the 900 and 1800 MHz bands. Hence eircom Group agrees with the proposed metrics for GSM operation.

Similarly, the coverage metrics for UMTS are in line with existing licence conditions for UMTS at 2100MHz, but modified for the relevant frequency (i.e. 900 and 1800 MHz). The measuring height has been changed from 1.7m to 1.5 m, but overall we would agree with the proposed metrics for UMTS operation.

However, the situation with regard to LTE is not clear. The figures proposed by ComReg appear extremely high and we do not accept the figure proposed by ComReg.

For example the proposed LTE coverage metric in the 1800MHz band is as follows:

“For measurement purposes – an average pilot signal field strength of 62dB μ V/m/MHz measured outdoors at a height of 1.5m, or an Eb/No \geq -8dB”

The figure of 62dB μ V/m/MHz is very high when compared to both GSM and UMTS. If we extrapolate the proposed figure for a 5 MHz bandwidth, it becomes 62 + 10 log (5) i.e. 69dB μ V/m/MHz .

If we then convert this to dBm, the coverage threshold becomes -73.5 dBm, which is extremely high when compared to the figure for a UMTS pilot i.e. -85.5 dBm (57dB μ V/m/5MHz at 1800 MHz).

It is our understanding that LTE coverage is based on the level of RSRP (Reference Signal Received Power). In LTE, the OFDMA technology information is transmitted in Physical Resource Blocks (1 Physical Resource Block contains 84 Resource Elements (RE) in the case of normal cyclic prefix). Some of those RE carry the Reference Signal (RS). The level of coverage (RSRP) is calculated from the RE that carries the Reference Signal. The power in the RS is therefore much lower than the overall LTE signal receive signal level.

eircom Group requests ComReg to clarify:

- The basic capability to be supported by the coverage metric used and the link between this basic capability and the coverage metric to be used. For example, in ECC Report 118, the basic capability for GSM is voice, the coverage metric is RxLev \geq - 92 dBm, which is equivalent to an electric field strength of 44.7 or 50.5 dB μ V/m for 900 or 1800 MHz respectively.
- The international technical standards or reports from bodies such as the ECC or CEPT that have been used for determining the appropriate Electric field strength as a coverage metric?
- What is meant by an LTE pilot signal?

Q.13. Do you agree with ComReg's proposed approach in relation to transitional issues that may arise in the 1800 MHz band in the period leading up to 1800 MHz availability? Please provide reasons for your view.

eircom Group refers to its previous submissions (in response to ComReg 09/99 and ComReg 10/71) in respect of transitional issues in the sub 1GHz bands and maintains those positions in respect of the 1800MHz band.

Q.14. Do you agree with ComReg's proposal for ensuring continuous spectrum assignments across time slices for the 800 MHz, 900 MHz and 1800 MHz bands where a bidder wins the same amount of spectrum in the two time slices? Please provide reasons for your view.

eircom Group agrees with ComReg's proposal to limit the assignment options for bidders that acquire the same number of lots in a band in each time slice, to a single option having the same lots in each time slice. This will:

- Provide continuous assignment across T1 and T2 which promotes efficiency and investment
- Reduce the complexity of options at the assignment stage and the potential for strategic bidding

Q.15. Do you agree with ComReg’s proposal that it is not appropriate that the assignment options presented to bidders are only limited to those options involving a partial relocation? Please provide reasons for your view.

eircom Group notes that partial relocation cannot be assured in all cases as evidenced by DotEcon’s example outcome shown in Section 4.3 of ComReg Document 10/105a. Furthermore, we note that it could, in theory, be possible to define a rule that provides for partial relocation for compatible outcomes, whilst detailing specific extensions to the rule for outcomes where partial relocation cannot be guaranteed. Such extensions to the rule would generate a longer list of assignment options for each bidder to ensure no single bidder was disadvantaged.

However we note that such a rule would be complex to define in a robust manner to deal with both compatible and non-compatible outcomes. This would reduce the transparency of the auction process. Given the information available in the primary and supplementary bid rounds, bidders would have no certainty during the main stage that partial relocation would be assured. Therefore eircom Group agrees with ComReg’s proposal not to limit assignment options to those offering partial relocation between the first and second time slices.

Q. 16: Do you agree with ComReg’s proposed approach in relation to transitional issues that may arise in the 1800 MHz band (between time slices)? Please provide reasons for your view.

eircom Group agrees in principle that a Memorandum of Understanding should be established to provide a basis for addressing any transitional issues arising between time slices. This must be established, following due consideration, in advance of the auction process so that all participants are aware of their potential obligations and duties.

Q. 17: Do you agree with ComReg’s proposal to issue “preparatory licences” to winners of liberalised spectrum rights of use in the 1800 MHz band? Please provide reasons for your view.

eircom Group agrees in principle to the proposal to issue ‘preparatory licences’ and would welcome the opportunity to review and comment on the draft terms of such licences.

2 Hutchison 3G Ireland



Ms Sinead Devey
Commission for Communications Regulation
Irish Life Centre
Lower Abbey Street
Dublin 1
BY REGISTERED POST AND EMAIL: sinead.devey@comreg.ie

21 January 2011

Dear Sinead

RE: SUBMISSION RE COMREG 10/105

Hutchison 3G Ireland Limited ("H3GI") welcomes the opportunity to respond to ComReg Doc. No. 10/105, "Inclusion of the 1800 MHz Band into the Proposed joint award of 800 MHz and 900 MHz Spectrum". However, for the reasons set out in its response to ComReg Doc. No. 10/71 "800MHz, 900MHz and 1800 MHz spectrum release" ("ComReg's Previous Consultation"), H3GI is extremely concerned by ComReg's apparent intention to proceed with the proposals contained in ComReg's Previous Consultation. If ComReg proceeds with these proposals, there will be: (i) litigation; (ii) legal uncertainty; and (iii) delay. H3GI requests ComReg to re-consider its alternative proposal contained in its response to ComReg's Previous Consultation and hold bi-lateral meetings with the other mobile network operators to determine whether this could form the basis for a solution. On the basis of the other mobile network operators' stated public positions, H3GI believes that there would be support for such a solution.

Spectrum Caps

At pages 16 and 17 of its consultation paper, ComReg states:

"Setting a spectrum cap is an important consideration in the design of any spectrum competition as it can influence the level of demand for spectrum in the competition and ultimately the degree of competition in relevant downstream market/s."

"...

The overall amount of spectrum held by an operator has an impact on the ability of that operator to compete in the relevant downstream market. Large asymmetries in the amount of spectrum held by different operators can affect the degree of competition in the downstream market, as small spectrum assignments could limit the competitive impact of an operator in the market. Incumbents with large spectrum holdings could therefore be at an advantage compared to new entrants even if both were to be awarded the same amount of spectrum in the competition.

... It is more likely to be the case that the outcome of the award process itself will be the most significant determinant of the future structure of the mobile market in Ireland. ..."

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H3GI welcomes these statements. As stated in its response to ComReg's Previous Consultation, H3GI does not agree that a 2 x 20 MHz cap is the most appropriate cap to set for a joint award of 800 MHz and 900 MHz spectrum. By setting this spectrum cap (and not a spectrum cap of 2 x 15 MHz with the possibility of relaxation in the event of supply exceeding demand), ComReg is securing revenue in the award process at the expense of long term competition in the mobile market in Ireland. With ComReg's proposed spectrum cap, ComReg is running the risk that H3GI only secures 2 x 5 MHz. In the long term, this will put H3GI at a significant competitive disadvantage to the incumbent operators. ComReg's statements above support H3GI's position and undermine ComReg's proposal to impose a 2 x 20 MHz spectrum cap in respect of 800 and 900 MHz. Setting a 2 x 20 MHz cap for a joint award of 800 MHz and 900 MHz spectrum will have an adverse effect on relevant downstream competition and the future structure of the mobile market in Ireland.

Consultation Questions

Please see attached our responses to ComReg's consultation questions.

Yours sincerely


MARK HUGHES
Head of Regulatory

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ANNEX 1 – CONSULTATION QUESTIONS

Q.1. Do you agree with ComReg’s proposal to use a Frequency Division Duplex (FDD) arrangement with a 2 x 5 MHz Block size for the 1800 MHz band? Please provide reasons for your view.

Q.2. Do you agree with ComReg’s proposal to set an overall cap of 2 x 50 MHz for the joint award including the 2 x 20 MHz sub-1GHz spectrum cap that was proposed in Consultation 10/71? Please provide reasons for your view.

For the reasons set out in our response to ComReg Doc. No. 10/71, H3GI does not agree with ComReg’s proposal to set a 2 x 20 MHz sub-1GHz spectrum cap.

Q.3. Do you agree with ComReg’s proposal to use two temporal lots as proposed for the sub-1GHz spectrum, namely early 2013 – 12th July 2015 and 13th July 2015 – 12th July 2030, in the joint award including the 1800 MHz band? Please give reasons for your view.

Q.4. Do you agree with ComReg’s approach in relation to the period between the expiry of Vodafone and O2’s respective GSM 1800 MHz licences and the proposed commencement date of licences for the second “time slice” in the 1800 MHz band? Please provide reasons for your view.

Q.5. Do you agree with ComReg’s view that there are important benefits to be obtained from designing the auction to ensure that new licences will comprise of contiguous spectrum assignments in the first time slice? Please provide reasons for your view.

H3GI agrees with ComReg’s view that there are important benefits to be obtained from designing the auction to ensure that new licences will comprise of contiguous spectrum assignments in the first time slice. This is a technologically and economically efficient approach.

Q.6. Do you agree with ComReg’s proposal to introduce a “full assignment round” into the first time slice of the 900 MHz and 1800 MHz bands? Please give reasons for your view.

H3GI agrees with ComReg’s proposal to introduce a “full assignment round” into the first time slice of the 900 MHz and 1800 MHz bands. This is a sensible approach.

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Q.7. Do you consider it appropriate that ComReg would provide compensation to a GSM licensee, in either the 900 MHz or 1800 MHz band, for required relocation costs that otherwise would have been avoided? Please give reasons for your view.

Yes, H3GI considers it appropriate that ComReg would provide compensation to a GSM licensee, in either the 900 MHz or 1800 MHz band, for required relocation costs that otherwise would have been avoided. Compensation should be fair and reasonable and subject to prior approval by an independent expert appointed by ComReg.

Q.8. Do you agree with ComReg's proposal to adopt an early liberalisation approach for both the 900 MHz and 1800 MHz bands? Please provide reasons for your view.

Yes, H3GI agrees with ComReg's proposal to adopt an early liberalisation approach for both the 900 MHz and 1800 MHz bands.

Q.9. Do you agree with ComReg's "rebate" proposal for 900 MHz and 1800 MHz GSM licences? Please provide reasons for your view.

H3GI re-iterates the comments that it made in response to ComReg Doc. No. 09/99, "Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands", namely:

"No, 3 does not agree that a "rebate" in respect of the remaining term of a licence should be provided for in ComReg's auction design. It confers an unfair commercial advantage on Meteor contrary to Article 107 of the Treaty on the Functioning of the European Union ("TFEU"). This provides:

"Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market."

Meteor has 2 x 7.2 900 MHz and 2 x 14.4 1800 MHz. In conjunction with its 1800 MHz, it only requires at most 2 x 5 900 MHz for the purposes of providing GSM services and is currently rolling out its 3G network. As a result, if ComReg grants Meteor a rebate, it will be providing it with funds to: (i) acquire liberalised spectrum below its full value (if Meteor uses the liberalised spectrum for 3G purposes); and/or (ii) use liberalised spectrum for GSM purposes, which Meteor would have done anyway. Meteor has sufficient incentive to liberalise early."

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Q. 10. Do you agree with the proposed methodology for setting licence fees for 1800 MHz spectrum? Do you agree with the proposed minimum price for 1800 MHz spectrum to be set at 50% of the proposed minimum price for sub-1GHz spectrum, split 50/50 between an upfront reserve price, and annual spectrum usage fees? Please provide reasons for your view.

Q.11. Do you agree with ComReg’s proposal to set a 2:1 ratio in relation to the eligibility points awarded to lots in the sub-1GHz and 1800 MHz bands, whereby twice as many eligibility points would be awarded for sub-1GHz lots as for lots in the 1800 MHz band? Please provide reasons for your view. Proposed inclusion of 1800 MHz into proposed joint 800/900 MHz award

Q. 12. Do you agree with ComReg’s proposal regarding coverage and roll-out obligations? Please provide reasons for your view.

Q.13. Do you agree with ComReg’s proposed approach in relation to transitional issues that may arise in the 1800 MHz band in the period leading up to 1800 MHz availability? Please provide reasons for your view.

Q.14. Do you agree with ComReg’s proposal for ensuring continuous spectrum assignments across time slices for the 800 MHz, 900 MHz and 1800 MHz bands where a bidder wins the same amount of spectrum in the two time slices? Please provide reasons for your view.

Yes, H3GI agrees with ComReg’s proposal for ensuring continuous spectrum assignments across time slices for the 800 MHz, 900 MHz and 1800 MHz bands where a bidder wins the same amount of spectrum in the two time slices. This is an economically efficient approach.

Q.15. Do you agree with ComReg’s proposal that it is not appropriate that the assignment options presented to bidders are only limited to those options involving a partial relocation? Please provide reasons for your view.

Yes, H3GI agrees with ComReg’s proposal that it is not appropriate that the assignment options presented to bidders are only limited to those options involving a partial relocation. Please see our response to question 14.

Q. 16: Do you agree with ComReg’s proposed approach in relation to transitional issues that may arise in the 1800 MHz band (between time slices)? Please provide reasons for your view.

Q. 17: Do you agree with ComReg’s proposal to issue “preparatory licences” to winners of liberalised spectrum rights of use in the 1800 MHz band? Please provide reasons for your view.

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3 Telefonica O2



O₂

1800MHz Spectrum

Response to Consultation
Document 10/105

28th January 2011

Introduction

This is O2's (Telefonica O2 Ireland Ltd's) response to ComReg document 10/105 - the fifth in a series of consultation documents to address liberalisation and licensing of radio spectrum for mobile services. O2 has provided responses to the four previous consultations, and has also exchanged correspondence with ComReg on a wide range of aspects of the various proposals in those documents. Given that the current consultation relates to a particular narrow aspect of the wider consultation process, and that ComReg has yet to issue a response to the previous consultations, we have limited comments in this document to include only those that are directly relevant to the consultation document and a limited number of other topics. O2 fully reserves its rights to continue to raise all concerns and objections raised in all of its responses, including in the event of O2 objecting to any ultimate Decision adopted by ComReg.

This response is without prejudice to O2's entitlement to have its licence extended, and this has been documented in detail in previous consultation responses and correspondence. While it will not be repeated here this in no way should be interpreted as a change of opinion. O2 continues to reserve all of its rights in this regard, as set out in detail in its previous submissions.

General Comments

Interim 900MHz Licence

While the current consultation focuses on matters that arise from ComReg's proposal to include 1800MHz in the auction with 800MHz and 900MHz only, O2 believes it is nevertheless necessary to again reiterate that it is now urgent for ComReg to provide clarity regarding its decision to issue interim licences when the current 900MHz licences expire in May 2011. It is now less than 4 months to the original date of expiry of these licences. This is the single most important matter which ComReg must now deal with arising from the several consultations that have run over the past 30 months. O2 has addressed this matter in response to the four previous consultation documents, and also in direct correspondence with ComReg. It is essential that ComReg now concludes its consideration and publishes its decision on the issue of interim licences.

Triple-Band auction at all?

There is one significant question that ComReg has not asked in the current consultation document at all – should the 1800MHz band be included in the same auction as 800MHz and 900MHz to form a triple-band auction? Though this question has been included in various forms in the previous consultations, and most recently in document 10/71, ComReg has not yet made a formal decision on this point. Yet, document 10/105 assumes that this decision has been taken and merely consults on the detail that is consequential to its inclusion. O2 does not believe that ComReg has properly taken into account its position on this question as submitted in response to 10/71.

O2 would again refer ComReg to its response to question 4 of 10/71 and ask that ComReg take this into consideration. In summary, O2's position as stated is that:

- Operators need to be able to take a holistic view when planning spectrum use, and also when buying spectrum at auction
- Bands that are close substitutes should be auctioned together so that bidders can switch between bands depending on how bidding, contention, and availability develops in the auction
- It makes sense to auction 800MHz and 900MHz together in a combinatorial auction
- Bands above 1GHz should be auctioned together

And in conclusion O2's response states:

"The most appropriate approach would be to hold over the 1800MHz band for a combined assignment in a single process involving the 2.3GHz and the 2.6GHz bands.

On this basis, O2 believes ComReg should hold over the award of the 1800MHz band until there is clarity regarding the availability of the 2.6GHz band (subject, however to resolving the matter well in advance of the expiry of current 1800 licences). It could then be assigned in a single process that includes 1800MHz, 2.3GHz, and 2.6GHz."

In document 10/105, ComReg states its interpretation of O2's response on this question:

2.3.1 Views of respondents

In their responses, both Vodafone and O2 noted a practical concern that the inclusion of the 1800 MHz band could result in the delay of the proposed joint award of sub-1GHz spectrum and for this reason they did not support the inclusion of the 1800 MHz band. Aside from this practical concern, Vodafone and O2's comments supported in principle the case for the inclusion of the 1800 MHz band as both operators acknowledged that these bands are used in tandem to provide mobile services.

This is not a correct representation of O2's position or response. We were, and are concerned that the inclusion of the 1800MHz band in the auction would delay ComReg's process both for delivering the auction, and also for clarifying ComReg's decision and procedure for dealing with licence expiry. This is already proving to be correct, however O2's most significant reason for objection related to the inclusion of 1800MHz without 2.6GHz.

While ComReg is yet to clarify what process will be used to licence spectrum in the 2.6GHz band this is a matter that is within ComReg's control. As O2 sees it, there are two options available to ComReg at this time:

1. Bring forward the award of spectrum in the 2.6GHz band to create a quad-band auction
2. Proceed with a dual-band 800MHz/900MHz auction now, and hold over the award of 1800MHz to a subsequent process which would include 2.6GHz, and possibly 2.3GHz

Of the two above options, O2's view is that the latter is preferable, as it allows ComReg to proceed quickly with the award of sub-1GHz spectrum. It would be necessary to hold the subsequent process in advance of the expiry of current MMDS and 1800MHz licences, which would imply that the award process should occur early in 2012.

Substitutes and Compliments

O2 has already explained the reason why lots of spectrum that are substitutes should not be sold in separate auctions. This issue was addressed in O2's response to document 09/99 (section 7) regarding the requirement to auction 800MHz and 900MHz spectrum in a single process, and the same considerations apply to 1800MHz and 2.6GHz.

In the current consultation, ComReg has put forward the view that 1800MHz should be sold together with 800MHz/900MHz, primarily because the lots in each band might be complimentary, but also because they might be substitutes. In the case where they are complimentary, a bidder might wish to pursue a bidding strategy to obtain some spectrum both above 1GHz and below 1GHz. We note that the same reasoning would apply to the inclusion of 2.6GHz in the auction. O2 is of the view that ComReg has limited the possibility of a bidder wishing to buy 1800MHz spectrum as a complement to 800MHz or 900MHz by setting the minimum price too high (see further comments below).

Greater weight should be given to ensuring that substitutable spectrum is auctioned together, particularly in this case. If ComReg clarifies the timetable for the subsequent 1800MHz/2.6GHz auction before the 800MHz/900MHz auction commences, then bidders will know that they will have the option to pursue a strategy to obtain spectrum both below 1GHz and above 1GHz, albeit in two separate processes. The only drawback being that they will not be able to submit a single combinatorial bid for both types.

O2 believes the substitutability between two bands that are below 1GHz (e.g. 800MHz & 900MHz) and between two bands above 1GHz (e.g. 1800MHz & 2.6GHz) to be far more significant than between spectrum above and below 1GHz (e.g. 900MHz and 1800MHz). The different propagation characteristics mean that it is unlikely, for example, that a bidder would switch their demand from 800MHz/900MHz to 1800MHz in response to rising prices in an auction¹. The decision on the relevant band to enable service must include consideration of a broad range of items including network infrastructure costs, equipment and technology costs, and site related costs in addition to the cost of spectrum. The price paid for the spectrum itself is only a part of the overall consideration, and should not be so significant that it is the factor that determines which band is used for network roll-out. Given the experience in Germany, where the final price for 800MHz spectrum was 30 times greater than the price for 1800MHz spectrum this means that a bidder is unlikely to switch from 800MHz/900MHz to 1800MHz as the price increases.

In document 10/105 ComReg focuses on the perceived efficiency gains of including 1800MHz in the 800/900MHz auction. O2 considers that ComReg has overstated the potential efficiency gains given that 1800MHz is more complementary rather than directly substitutable. However in setting such a high minimum price for 1800MHz and one so close to the 800/900MHz reserve price, ComReg is effectively ruling out the very efficiency outcome which it cites as the main reason for including 1800MHz in the auction in the first place. ComReg has also failed to consider the efficiency gains lost by auctioning 1800MHz and 2600MHz separately.

¹ O2 notes that in the 2010 spectrum auction in Germany, E-Plus withdrew from bidding on 800MHz towards the end of the auction and instead bid on 1800MHz only. O2 is of the view that this is because E-Plus was simply out-bid in the 800MHz band and does it not mean that the two bands are substitutes. O2 also notes that the ratio of the final prices for the two bands was approximately 30:1

On the basis of the above, the most sensible way for ComReg to progress is to ensure that 800MHz and 900MHz is auctioned together and that 1800MHz and 2.6GHz should also be auctioned together (possibly with 2.3GHz). If ComReg cannot combine all four into a quad-band auction, then they should be separated into two auctions, below 1GHz and above 1GHz.

Minimum price

O2 has been, and is in fundamental disagreement with the manner in which ComReg has proposed to set the minimum price for a lot of spectrum in the last three consultations. We have given detailed arguments as to why ComReg's approach and valuation is wrong in response to documents 09/99, and 10/71. ComReg has not responded to these submissions, so O2 does not know if they have been rejected or ignored, nor do we know the reason for same. It is however clear from the current consultation document that ComReg has not taken into account any of these comments made in relation to the objectives, methodology, legal framework, or actual minimum price.

In the first place, it has never been explained why Dotecon's predicted market value for a lot of spectrum in Ireland is being used to determine the minimum price. O2 disagrees with the methodology used to predict the sale price, but leaving this aside, there seems to be no logical explanation as to why the minimum price should be set at this level. ComReg has chosen to use an auction as the means to allocate the spectrum, and determine the price to be paid. However the proposal to set the minimum by reference to the expected final sale price fundamentally undermines the ability of the auction to determine the price, and by consequence the final assignments. There is a significant likelihood that ComReg will choke-off demand at the currently proposed pricing.

Notwithstanding the above comments, O2 was still extremely surprised at the method used to set the minimum price per lot for the 1800MHz spectrum. We now find that Dotecon's benchmarking database is not suitable for determining a starting price for the auction of 1800MHz spectrum in Ireland. Instead, Dotecon has produced a report that attempts to determine the value of 1800MHz spectrum relative to 800MHz and 900MHz. O2 finds that this method is without credibility. Dotecon admit in the report itself that "The data from auctions where both categories of spectrum frequencies were awarded in a single process is thin . . ." , and it is necessary to make numerous additional inclusions, exclusions, and adjustments in order to arrive at a determination that is satisfactory.

Table 5 of the Dotecon report shows clearly why a low reserve price should be set. The final sale price over reserve in the 2010 German auction varied from 518% to 23,600%, showing the degree of variance that can occur in a competitive auction but also the difficulty in what ComReg is attempting to do, i.e. to predict in advance what the final price will be, and set the reserves close to these prices. The only thing that tables 6, 7 and 8 prove is that there is no consistent and reliable relationship between the price of spectrum above and below 1GHz that could be used to determine the expected price of 1800MHz spectrum in the proposed auction. In the final analysis, O2 is of the view that the method used to determine the minimum price is not significantly more reliable than taking the average of a select group of previous auctions in order to give a final result that is within an acceptable range. It almost appears that to some extent the model involves a degree of reverse-engineering the

methodology to produce a result which is within an acceptable range. There is a clear procedural advantage for ComReg in having the price of 1800 MHz calculated by linking it to the 800/900 minimum price which is at a much more advanced stage of consultation. It means that once the 800/900 MHz price is set, it allows ComReg to effectively truncate its consultation on the 1800 MHz minimum price. For the reasons set out above however there is no basis for or other merit in this approach. Indeed it risks giving the impression that rather than consider and consult in proper detail on the best means of setting a minimum price for 1800, ComReg is seeking to rush through the consultation so that 1800 can be included in the auction already planned for 800 and 900 MHz

The only recent example where 1800MHz spectrum was sold as part of a multi-band auction was in 2010 in Germany. In this case 800MHz, 1800MHz, 2.1GHz, and 2.6GHz spectrum was awarded in a single auction. The final sale price for the 1800MHz spectrum, when adjusted for population, would imply a final sale price of approximately €1m for a lot of 1800MHz spectrum in Ireland. This simply does not compare with ComReg's proposal to set the minimum price for the auction in Ireland at €12.5m.

O2 was also extremely surprised to read two articles in the Sunday Business Post this week which stated that the spectrum auction is to raise more than €250m this year, given that the matter of the minimum price is still subject to consultation. The articles are based on an interview with ComReg's Chairperson Alex Chisholm. ComReg has not yet received and considered comments in response to this consultation, and must take care to avoid creating the impression that the matter has already been decided, or that ComReg has fettered its discretion.

ComReg should go back to setting the price at a small value that is sufficient to deter frivolous bidders. As previously suggested by O2, Dotecon could produce a benchmark report showing the relevant reserve or minimum prices that have been set for the various auctions in their database. O2 notes that in the upcoming multiband auction in Switzerland, the minimum price for 800MHz spectrum has been set at the equivalent of €8.9m for 800MHz, and €2.9m for 1800MHz when adjusted for population. In the upcoming Hong Kong auction, the minimum price for 800MHz/900MHz spectrum has been set at the equivalent of €1.7m when adjusted for population.

When presenting its decision setting out the final reserve and minimum price, O2 requests that for the purpose of clarity, ComReg specify the actual reserve and minimum annual payment, rather than the NPV of those amounts for eircom. While we understand why ComReg has used the NPV in the derivation of the minima, this number is of no use to any operator other than eircom. Each bidder will have its own discount rate and as a result will have a different NPV.

Response to ComReg's Questions

The questions asked by ComReg in the consultation document are all based on the supposition that ComReg is to proceed with a triple-band auction including 1800MHz. As stated above, O2 does not agree that this is the correct course of action, however we have nonetheless provided responses to

the questions raised. These responses are without prejudice to our overall opinion that 1800MHz should be auctioned together with 2.6GHz.

Q.1. Do you agree with ComReg’s proposal to use a Frequency Division Duplex (FDD) arrangement with a 2 x 5 MHz Block size for the 1800 MHz band? Please provide reasons for your view.

Yes, O2 agrees with ComReg’s proposal to use a FDD arrangement with each lot consisting of 2 x 5MHz. O2 has supported this type of arrangement for 800MHz and 900MHz throughout the previous four consultations, and the same considerations and reasoning apply to the 1800MHz band.

Q.2. Do you agree with ComReg’s proposal to set an overall cap of 2 x 50 MHz for the joint award including the 2 x 20 MHz sub-1GHz spectrum cap that was proposed in Consultation 10/71? Please provide reasons for your view.

O2 has previously explained its views regarding spectrum caps in response to documents 08/57, 09/14, 09/99, and 10/71 (the “Previous Consultations”). It is not necessary to repeat the position here, however in very brief summary our position is that:

- In general spectrum caps should be avoided, or used sparingly, as they can have the effect to distort market competition
- It is permissible to impose spectrum caps in particular circumstances in order to achieve specific objectives, and the triple-band auction as proposed by ComReg is one such circumstance where it is permissible to impose some form of spectrum cap
- The cap itself should only be a temporary measure that applies during the auction itself, and not a longer term spectrum holding cap
- ComReg has a particular difficulty that must be solved in relation to spectrum sharing, and the use of spectrum caps. This has been explained in detail in response to consultation 10/71, and any application and auction process must take account of this issue. ComReg has not responded to this point, or, it seems, taken it into consideration in proposing how spectrum caps should apply when dealing with the triple-band auction. O2 assumes that ComReg will clarify this matter when the response to consultation 10/71 is published.

Subject to ComReg dealing adequately with all of the above points, O2 believes that ComReg’s proposed spectrum cap of 2 x 20MHz below 1GHz, and 2 x 50MHz in total is appropriate in principle.

Q.3. Do you agree with ComReg’s proposal to use two temporal lots as proposed for the sub-1GHz spectrum, namely early 2013 – 12th July 2015 and 13th July 2015 – 12th July 2030, in the joint award including the 1800 MHz band? Please give reasons for your view.

Subject to our comments below in response to question 4, O2 agrees that two temporal lots as proposed would be the preferred arrangement. Three temporal lots would complicate the auction

process unnecessarily.

Q.4. Do you agree with ComReg’s approach in relation to the period between the expiry of Vodafone and O2’s respective GSM 1800 MHz licences and the proposed commencement date of licences for the second “time slice” in the 1800 MHz band? Please provide reasons for your view.

Without prejudice to O2’s general position with regard to the triple-band auction, if ComReg was to proceed as proposed, then O2 disagrees with ComReg’s proposal not to deal with the 6.5 month “gap” period that might emerge at the expiry of the current O2 and Vodafone 1800MHz licences. It is not good enough for ComReg to ignore this issue in the consultation process – it is a real and possible outcome from the auction process that is proposed and should be resolved.

Existing licensees might want to continue to use some or all of their 1800MHz spectrum to provide GSM service up to and beyond the expiry of the current licences. They would fully expect to be able to do this up to the time when their current licences expire without being required to modify existing licences or to buy liberalised spectrum in this period. In the period after 2015, O2 can accept that if an existing licensee wants to continue to use some spectrum in the 1800MHz band for GSM service, then this spectrum will be obtained by buying it in the proposed auction. We do not agree that an existing licensee should be forced to relinquish their existing licence and buy a liberalised licence if they intend to continue to use the spectrum to provide a GSM service, however without a proposal to bridge the “gap” ComReg is effectively forcing this course of action, as there is no other means to provide continuous availability of spectrum for this purpose.

O2 is of the view that ComReg should simply clarify that if such a gap arises, then the existing licensees will have the option to have licenses extended (for whatever portion of the spectrum is required) at the relevant time. While it provides continuity of availability of spectrum for existing licensees, it will have no material effect on the proposed auction process or on other operators. The only alternative would be for ComReg to revert back to three temporal lots, which would make the auction process significantly more complicated.

Q.5. Do you agree with ComReg’s view that there are important benefits to be obtained from designing the auction to ensure that new licences will comprise of contiguous spectrum assignments in the first time slice? Please provide reasons for your view.

Yes, O2 agrees that there are benefits in designing the auction in such a way that licensees can obtain contiguous spectrum assignments. O2’s reasoning has already been provided in response to the Previous Consultations.

Q.6. Do you agree with ComReg’s proposal to introduce a “full assignment round” into the first time slice of the 900 MHz and 1800 MHz bands? Please give reasons for your view.

Yes, subject to the further comments below, and in response 7, O2 agrees that it is preferable to have a full assignment round in the first time slice. This is the most effective way to allow licensees to aggregate their assignments.

There are, however some difficulties that this process raises in relation to existing licensees who might choose not to liberalise spectrum assigned under existing licences that extend into the first time period. Those licensees would expect to be able to hold their assigned spectrum without modification until their licence expires. They would not expect to have to enter an assignment auction and bid, then pay, simply to maintain their existing assignment. However the “full assignment round” might force them to modify their networks even if they opt to simply continue with their licence unchanged. In this circumstance, it would be appropriate that such an effected licensee would be compensated for being required to make this modification.

Q.7. Do you consider it appropriate that ComReg would provide compensation to a GSM licensee, in either the 900 MHz or 1800 MHz band, for required relocation costs that otherwise would have been avoided? Please give reasons for your view.

In the current (10/105), ComReg states (3.6.5.2) that relocation might not introduce any additional expense where an existing operator buys spectrum in the second time slice as a network re-tune would be required in that circumstance anyhow – it would just happen earlier. However, this would not be the case where an operator decided to hold existing assignments under current licences for GSM service, but roll-out a new network for a non-GSM service under the liberalised licence in the second time period. In this case there would be no re-tune in the first time period, and the full assignment round would force existing licensees to undertake a GSM network relocation that would otherwise not be necessary. In this circumstance, it would be appropriate that such an affected licensee would be compensated for being required to make the modification.

Q.8. Do you agree with ComReg “s proposal to adopt an early liberalisation approach for both the 900 MHz and 1800 MHz bands? Please provide reasons for your view.

In principle, O2 agrees that ComReg should provide a means by which existing licensees can liberalise existing assignments if they choose to do so, however we reserve our final position until the mechanism to be used, including activity rules have been fully documented and explained.

There would seem to be a difficulty in the process proposed by Dotecon to allow for liberalisation of existing assignments. It is proposed that on knowing the result of each bidding round existing licensees can decide (or the auction algorithm will decide for them based on their package bids) whether to liberalise their existing spectrum or not. However this means that bidders will not know how many lots of spectrum are available in each band for each bidding round in advance of placing their bid. This is a necessary piece of information for bidders to determine how best to place bids in order to maximise their chance of achieving their preferred outcome. Its absence could lead to an inefficient outcome.

ComReg will need to clarify this point in the next consultation on the proposed auction.

Q.9. Do you agree with ComReg’s “rebate” proposal for 900 MHz and 1800 MHz GSM licences? Please provide reasons for your view.

Yes, O2 agrees with ComReg’s proposal for a rebate on the remaining term of existing licences.

Q. 10. Do you agree with the proposed methodology for setting licence fees for 1800 MHz spectrum? Do you agree with the proposed minimum price for 1800 MHz spectrum to be set at 50% of the proposed minimum price for sub-1GHz spectrum, split 50/50 between an upfront reserve price, and annual spectrum usage fees? Please provide reasons for your view.

No, O2 does not agree with ComReg’s proposal. See further comments above.

Q.11. Do you agree with ComReg’s proposal to set a 2:1 ratio in relation to the eligibility points awarded to lots in the sub-1GHz and 1800 MHz bands, whereby twice as many eligibility points would be awarded for sub-1GHz lots as for lots in the 1800 MHz band? Please provide reasons for your view.

O2 agrees that the eligibility points for the 800MHz and 900MHz bands should have a ratio of 1:1. We also agree that the ratio of eligibility points for 800MHz/900MHz and 1800MHz might well be correctly set at greater ratio than 1:1 – there will be a material difference in value, however O2 believes ComReg has overestimated the value of 1800MHz spectrum relative to 800MHz/900MHz. While it is not necessary to set the eligibility ratio precisely corresponding to the ratio of valuation, O2 believes it is not possible to comment on whether 2:1 is the correct ratio until the auction process, minimum prices, and activity rules have been further clarified. For example, it is necessary to know if 100% of eligibility points must be used in each round in order to be retained for subsequent rounds.

It is noted that in the upcoming Swiss multiband auction an eligibility point ratio of 3:1 has been set for 800MHz/900MHz and 1800MHz. In Hong Kong it is 2:1, and in the 2010 German auction it was 1:1.

Q. 12. Do you agree with ComReg’s proposal regarding coverage and roll-out obligations? Please provide reasons for your view.

Yes, O2 agrees with the proposal, and believes ComReg has taken a pragmatic approach to this issue. We have explained in some detail in response to the Previous Consultations how networks are rolled out and optimised across a number of bands and technologies, and why this is a practical approach.

Q.13. Do you agree with ComReg’s proposed approach in relation to transitional issues that may arise in the 1800 MHz band in the period leading up to 1800 MHz availability? Please

provide reasons for your view.

Yes, in principle, O2 agrees with ComReg's proposed approach to the transitional issues in the period leading up to the availability of newly licensed 1800MHz spectrum. As ComReg rightly points out, the precise details of these transitional issues will not be known until after the auction has been completed, and it might be necessary to revisit the issue then.

Q.14. Do you agree with ComReg's proposal for ensuring continuous spectrum assignments across time slices for the 800 MHz, 900 MHz and 1800 MHz bands where a bidder wins the same amount of spectrum in the two time slices? Please provide reasons for your view.

Yes, O2 agrees with the proposal – in the circumstance where a bidder wins the same amount of spectrum in a single band across two time-slices then they should be limited to the same spectrum for both. This gives the most efficient result overall.

Q.15. Do you agree with ComReg's proposal that it is not appropriate that the assignment options presented to bidders are only limited to those options involving a partial relocation? Please provide reasons for your view.

At this stage in ComReg's overall consultation process, it appears that this might be a marginal issue that can be resolved by the assignment round of the auction. On this basis, O2 agrees with ComReg's proposal.

Q. 16: Do you agree with ComReg's proposed approach in relation to transitional issues that may arise in the 1800 MHz band (between time slices)? Please provide reasons for your view.

Yes, O2 agrees with the proposed approach – it should produce the most efficient outcome. ComReg's commitment to consider variations to licences that are necessary to facilitate a pragmatic approach to network transitioning is sensible.

Q. 17: Do you agree with ComReg's proposal to issue "preparatory licences" to winners of liberalised spectrum rights of use in the 1800 MHz band? Please provide reasons for your view.

Yes, as previously stated in response to 10/71, this is a sensible proposal by ComReg. It will allow licensees to begin building networks in preparation for the commencement of licences and as a result will mean that consumers and operators can benefit from liberalisation sooner.

4 Vodafone Ireland



Vodafone Response to the ComReg Consultation on Inclusion of the 1800 MHz Band into the Proposed joint award of 800 MHz and 900 MHz Spectrum

Executive Summary

Vodafone is in favour of the inclusion of 1800MHz spectrum in a single award process with spectrum in the 800MHz and 900MHz bands, provided it does not add significant delay or uncertainty into the process.

In particular, it is essential that clarity is provided around the expiry on 15th May of existing 900MHz licences held by O2 and Vodafone. Interim licences on acceptable terms are necessary to prevent disruption of services to customers.

The current terms proposed for the licensing process are complex, but are broadly acceptable and could be made to work given a number of changes and clarifications outlined in this and our earlier responses. In particular,

- The granting of Interim 1800MHz licences from Dec 2014 till July 2015 in appropriate circumstances (as detailed elsewhere in this response)
- The earliest possible liberalisation of 900 MHz and 1800MHz licences
- Revisiting the reserve prices. The proposed benchmarking approach is based on the incorrect assumption that it is both necessary and proportionate to use the minimum price as a tool to discourage strategic behaviour or collusion in an auction. This logic is even more flawed when the 1800MHz band is added to the auction. Reserve prices should be set only to deter frivolous or speculative bidders.

However, Vodafone believes a much simpler approach could better achieve the desired objectives. Subject to agreement from each of the existing licensees, Comreg could 'buy out' the tail period of Meteor's existing licence in the 900 MHz band, and the tail period of all the existing licences in the 1800 MHz bands such that all the existing licences expire in early 2013.

This approach would allow for a major simplification of the design of the auction with a number of major benefits:

- No need for temporal lots. Single licences for each spectrum block would cover the entire period from early 2013 to July 2030.
- Eliminates the potential 6½ month gap in the availability of 1800MHz spectrum
- Ensures full availability from early 2013 on a fully liberalised basis, removing the necessity for an early liberalisation option as currently proposed

The 'buy out' price, derived from the final prices realised from the auction, would be paid where possible in the form of a discount from the up-front price for new licences successfully bid for.

If agreement to this simpler design, which Vodafone believes is in the interests of all parties, is not quickly achieved then ComReg should revert to the proposal currently being offered (as above).

Introduction

Vodafone welcomes the opportunity to respond to this consultation paper on the inclusion of the 1800 MHz band in a joint award of 800 MHz and 900 MHz spectrum.

This response should be read in conjunction with the previous Vodafone submissions on the licensing of the 1800 MHz and sub- 1 GHz bands.

As previously indicated in our response to ComReg consultation document 10/71, Vodafone is in favour, in principle, of the inclusion of 1800 MHz spectrum in a joint award process with spectrum in the sub-1 GHz bands given the potential for this approach to maximise the economic efficiency of the spectrum allocation outcome across these bands that are to a significant extent substitutable and/or complementary to one another in the delivery of communications services to retail customers. However the prospective benefits of implementing the proposed expanded joint spectrum award process must be weighed against other considerations in determining whether the incremental benefits of this approach would exceed the associated costs in practice.

Vodafone considers that, on balance, the inclusion of the 1800 MHz band in a joint spectrum award process is likely to be of incremental benefit in terms of the efficient allocation and use of spectrum and overall consumer welfare provided that the implementation of this proposal does not lead to any further delay to a final decision by ComReg on the granting of Interim 900 MHz licences in particular. However the proposed expansion of the joint spectrum award process to include an additional spectrum band raises significant issues that require amendment of key elements of the auction design as set out in ComReg consultation document 09/99. While Vodafone agrees with many of the proposed revisions to aspects of the auction design, the considerable complexity of the process as currently proposed is less than optimal and leaves significant scope for modification of the existing proposals to enhance the potential for an optimal outcome from the spectrum auction. Vodafone's views on a modified approach are set out in detail in a later section of this response.

A factor central to the assessment of the merits of inclusion of 1800 MHz spectrum in a joint award process, highlighted by Vodafone in our response to ComReg consultation document 10/71, is the extremely limited time now remaining to the expiry of the existing 900 MHz licences of Vodafone and O2 and the costs (including in terms of delay and continuing extreme regulatory uncertainty) associated with consulting on the significantly amended proposals in the present consultation prior to reaching final decisions in relation to the 900 MHz Interim Licences and the spectrum auction. Despite our previously expressed concerns around the adverse consequences of delay from consulting on the inclusion of 1800 MHz spectrum in the joint award process ComReg has proceeded with the present proposals to include 1800 MHz spectrum in a joint spectrum award process and a further 3 months have elapsed without any final decision on the granting of Interim Licences. Vodafone is gravely concerned by the additional delay caused by the present extra round of consultation and the risks it raises to the granting of Interim Licences in sufficient time to ensure continuity of service to customers.

[Redacted]

Vodafone believes that if 900 MHz Interim Licences are not granted before existing licences expire on 15th May then ComReg will be responsible for the resulting serious adverse effect on the provision of communications services to end users.

ComReg must now, as a matter of urgency, issue a Decision on its Interim Licence proposal, if necessary in advance of a final decision on the spectrum award process.

We reiterate our view, as set out in the response to ComReg consultation document 10/71, that the Interim Licensing arrangements dealing with any transition period and the proposals relating to the spectrum award process can best be treated separately. In order to give the required certainty to existing licensees in respect of current licence expiry, ComReg can position these as separate measures so that any challenge to, or delay in, the spectrum award is decoupled from the Interim Licence arrangements.

Comments on ComReg Licensing Proposals

Current Vodafone View in Context of Response to Previous ComReg Consultation Proposals

In Vodafone's response to ComReg consultation document 10/71 we set out our view that ComReg's proposed approach to the future licensing of the 800 MHz and 900 MHz bands, taken as a whole, is appropriate and in large measure addresses the key concerns raised in our previous consultation responses on the future licensing arrangements for the 900 MHz band. However Vodafone emphasised that the detail of ComReg's proposals should be amended in a number of respects (such as by allowing liberalised use of the proposed Interim 900 MHz licences) in order to more effectively achieve ComReg's statutory regulatory objectives.

ComReg has not yet addressed the issues raised by Vodafone in response to consultation document 10/71, indicating the intention to respond to these in ComReg's forthcoming response to consultation and draft decision. However, for the avoidance of doubt, Vodafone maintains its previously stated position in relation to ComReg's proposals for the 800 MHz and 900 MHz spectrum bands.

While the current proposals for the licensing of the 1800 MHz band are reasonable in terms of the achievement of ComReg's objectives, Vodafone remains of the view that there are alternative approaches to the future arrangements for the 1800 MHz band that better achieve ComReg's regulatory objectives. As set out in our response to ComReg document 08/57 Vodafone believes that in principle the best approach to the licensing of the 1800 MHz band would be to extend the duration of most or all of the spectrum usage rights under 1800 MHz licences held by existing licensees in this band, at a minimum until the end date of the current 3G licences in 2021, and to auction only the remainder of the band. This approach could be undertaken in a joint award process including available spectrum in the sub-1 GHz bands and would maximise regulatory certainty for existing operators while still providing the opportunity for efficient new entry to the 1800 MHz band.

Requirement for Transparency in Relation to Future Arrangements for the 2.6 GHz Band

Given the significant extent to which spectrum in the 2.6 GHz band is likely to be substitutable for 1800 MHz spectrum Vodafone considers that it is essential that ComReg makes all reasonable efforts to provide transparency in relation to the timing and terms of availability of spectrum in the 2.6 GHz band prior to the proposed auction of the 1800 MHz and sub-1 GHz spectrum bands. This

information is necessary in order to enable prospective bidders to determine as accurately as possible their valuation of the sub-1 GHz spectrum currently proposed to be auctioned.

If ComReg fails to provide such transparency then this may result in an inefficient allocation process as the earlier part of the process incorporating the 1800 MHz band will necessarily be addressed by potential bidders by taking a conservative view of the availability of the 2.6 GHz band. If ComReg were to subsequently confirm the future availability of the 2.6 GHz band then there is a significant risk that operators will have bid for and obtained 1800MHz spectrum that is sub-optimal for its intended use when compared to the 2.6 GHz. Having committed to the 1800MHz they may then not bid the full economic value for a 2.6 GHz allocation.

Potential Modified Auction Approach

Vodafone observes that including 1800 MHz spectrum for award in the proposed auction would introduce significant additional complexity into a competitive allocation process that would be notably complex even if its scope were limited only to the assignment of spectrum in the sub-1 GHz bands. Complexity imposes costs and risks in an award process that militate against the realisation of an efficient spectrum allocation outcome. The complexity of the current proposed auction design becomes extreme when the joint spectrum award process is expanded to include the 1800 MHz band.

The joint licence award process currently proposed by ComReg adopts a temporal lots approach to the allocation of spectrum in all 3 bands (800 MHz, 900 MHz and 1800 MHz). This facilitates a particularly wide range of possible outcomes from the auction process but consequently also increases the potential for sub-optimal outcomes that would not ensure continuous seamless access to spectrum by existing licensees across the multiple bands required to provide effective communications services to their customers. Moreover the much larger range of potential bid options arising from this design poses a considerable challenge for effective bid management by applicants in the award process, and increases the risk of bidding errors.

Vodafone also considers that a lack of continuity, in terms of actual (in the case of the 900 MHz band) and potential (in the case of the 1800 MHz band) gaps in the time between the expiry of existing licences in the bands and the commencement of new licences to be awarded is a problematic aspect of the current proposed structure of the joint award process. While the complexity of the award process is high but acceptable in the context of a joint award process for the sub-1 GHz spectrum bands only, and continuity of access to spectrum by existing licensees in the 900 MHz band would be ensured by the necessary commitment to grant Interim licences, the expansion of the award process to include 1800 MHz spectrum introduces further complexity and additional challenges.

Vodafone notes in particular the potential for a 6 ½ month gap between the current expiry date of the existing 1800 MHz licences and the commencement of new 1800 MHz licences in the second temporal lot. This would, under a number of auction outcome scenarios, present significant risks of disruption to the delivery of current standards of communications services. Although a firm advance commitment from ComReg to grant Interim 1800 MHz Licences in relevant circumstances (where one or more of the existing licensees were to acquire sufficient 1800 MHz spectrum in the second proposed time slice, but insufficient or no 1800 MHz spectrum in the proposed first time slice) would to a large extent address this concern, this would be a stopgap approach that would not fully remedy the uncertainty and excessive complexity associated with current proposals.

If ComReg concludes that the joint award process should include both the 1800 MHz and sub-1 GHz bands then it is important that, to the extent possible, all reasonable steps are taken by ComReg to seek to simplify the design and structure of the auction consistent with achieving its statutory regulatory objectives.

In this regard Vodafone considers that ComReg should determine the feasibility of a modified auction approach that would reduce the complexity and lack of licensing continuity associated with ComReg's current proposals. This approach would, subject to agreement from each of the existing licensees, involve the 'buy out' of the tail period of Meteor's existing licence in the 900 MHz band, and the tail period of all the existing licences in the 1800 MHz bands such that these existing licences would expire in early 2013. As a result all existing licences in both the 900 MHz and 1800 MHz bands would end not later than the date of availability of liberalised 800 MHz spectrum, and on the basis that Interim 900 MHz licences would be granted to Vodafone and O2 to cover the period to early 2013, the expiry of licences in the bands would dovetail exactly with the commencement of new licences to be awarded at 1800 MHz and in the sub-1 GHz bands.

This approach would allow for a major simplification of the design of the joint spectrum award process with a number of major benefits:

1. The common end dates for all existing licences would obviate the current rationale for use of a temporal lot division of the new licences to be awarded in the auction, and replace the temporal lots with single licences for each spectrum block in the 3 bands which would cover the entire period from early 2013 to July 2030.
2. Would eliminate the problematic issue of a potential 6 ½ month gap in the availability of 1800 MHz spectrum to one or more of the existing licensees in the band and the availability of new licences in the second time slice, which could arise under certain auction outcome scenarios as already described.
3. Would ensure full availability for auction of the entirety of each spectrum band from early 2013 on a fully liberalised basis, and therefore remove the necessity for an early liberalisation option as currently proposed.

The 'buy out' price to be paid to the existing licensees to shorten the duration of the existing licences would be derived from the final prices realised from the auction, adjusted for the 2 to 2 ½ year shortening of the duration of the existing licences according to a transparent methodology detailed in advance of the award process similar to that proposed for parties availing of the early liberalisation option under ComReg's current proposals. The 'buy out' price would be paid, where possible, in the form of a discount from the up-front price for new licences successfully bid for.

Vodafone notes that in order for the auction approach described above to be feasible, consent would be required from each of the relevant licensees that would be required to shorten the duration of their existing licence(s). However given that this simplified auction approach would offer major advantages over ComReg's current proposals, without compromising the achievement of any of statutory regulatory objectives, ComReg should immediately contact the licensees to determine whether the necessary consent would be forthcoming to render this approach feasible.

In the event that unanimous consent to the proposed modified auction proposal by the existing licensees cannot be immediately achieved, then ComReg should implement its current general proposed spectrum award approach. However, although the responses to subsequent consultation

questions assume that ComReg's current proposed spectrum award approach are to be implemented, these are without prejudice to Vodafone's view that a simplified auction approach as set out above would be a superior approach to implement.

Proposed Approach to Liberalisation of the 1800 MHz Band

Vodafone disagrees with ComReg's decision not to allow liberalised use of 1800 MHz spectrum until the commencement of the new 1800 MHz licences in early 2013. This risks significant unnecessary delay in the deployment of innovative technologies such as LTE in the band, and consequent delay in the provision of enhanced mobile broadband services to the detriment of the welfare of end users.

ComReg may argue that whilst early availability of the 1800 MHz band may theoretically provide benefits from liberalisation, there are a number of complicating factors such as the need to undertake transitional measures which may in any event prevent the benefits of liberalisation being realised significantly in advance of when new 1800 MHz licences would commence. However this argument would support a decision to liberalise as, if operators cannot deploy technologies such as LTE or WiMax in the spectrum in this period then no distortion of competition can arise. And if no distortion of competition can arise, then ComReg has no basis for resisting the requirement to remove restrictions on liberalisation at the earliest opportunity.

Notwithstanding the above, Vodafone notes that in section 3.10.2 of the consultation document ComReg proposes to apply a technology and service neutral approach with respect to the new 1800 MHz licences to be awarded in the proposed expanded joint spectrum award process by requiring compliance with Decision 2009/766/EC. However while the EC Decision explicitly permits use of UMTS and GSM terrestrial systems, amendments to allow the use of LTE and WiMax technologies in the 900 MHz and 1800 MHz bands have not yet been formally concluded. As ComReg acknowledges, the GSM Amending Directive does allow Member States to permit the use of other terrestrial systems not listed in the Annex to the EC Decision provided that these can co-exist with the permitted systems explicitly listed. It is therefore open to ComReg to confirm that any new 1800 MHz (and sub-1 GHz) licences awarded in the proposed joint spectrum award process will permit the use of LTE and WiMax technologies in advance of the spectrum award process, and if necessary prior to their formal inclusion in the Annex to the EC Decision. In the interests of maximising regulatory certainty, Vodafone urges ComReg to confirm in advance of the joint spectrum award process that use of LTE and WiMax technologies will be permitted in these bands.

Response to Consultation Questions

Q1. Do you agree with ComReg's proposal to use a Frequency Division Duplex (FDD) arrangement with a 2 X 5 MHz Block size for the 1800 MHz band? Please provide reasons for your view.

Yes. Vodafone agrees with this proposed approach for the reasons cited by ComReg and DotEcon. A FDD arrangement with a 2 X 5 MHz block size is consistent with that proposed for spectrum in the 900 MHz and 800 MHz bands, is compatible with the technologies likely to be

deployed in the 1800 MHz band, and by maximising flexibility while minimising complexity in the proposed joint award process is most likely to lead to an efficient auction outcome.

A larger minimum block size would reduce flexibility in the auction process and would lessen the prospects for an optimal auction outcome. Use of a different block size or band arrangement for 1800 MHz spectrum relative to that used for the 800 MHz and 900 MHz bands could also unduly complicate a joint award process by limiting the ability of bidders to switch between lots during the auction process, thereby reducing the probability of an optimal auction outcome.

Q2. Do you agree with ComReg's proposal to set an overall cap of 2 X 50 MHz for the joint award including the 2 X 20 MHz sub-1 GHz spectrum cap that was proposed in Consultation 10/71? Please provide reasons for your view.

In the context of the proposed joint award process for spectrum in the 800 MHz, 900 MHz, and 1800 MHz bands, Vodafone agrees that an overall cap would be appropriate to avoid the possibility of extreme asymmetries in distribution of spectrum as an outcome of the award process (such as a single licensee obtaining access to an entire spectrum band) which could have an adverse impact on competition in the provision of communications services.

Vodafone considers that an overall cap of 2 X 50 MHz cap for the proposed joint award process would be reasonable as it would preclude the possibility of extreme asymmetry in distribution of spectrum between licensees as an outcome of the process while also providing the necessary considerable flexibility to licensees in relation to how they combine spectrum across bands to optimise the delivery of communications services to their customers.

For the reasons we set out in our response to ComReg consultation document 10/71 Vodafone agrees that a separate 2 X 20 MHz sub-1GHz spectrum cap is reasonable in the context of the spectrum available in the 800 MHz and 900 MHz bands. This strikes a balance between avoiding extremely asymmetrical outcomes in spectrum allocations (that could for example potentially lead to one or more existing licensees losing access to sub - 1 GHz spectrum entirely with the enormous adverse impact on competition and consumer welfare outlined by Vodafone in our submissions to the previous ComReg 900 MHz licensing consultation documents) while minimising the risk of spectrum going unallocated from the award process. It also provides any efficient new entrants with the opportunity to obtain access to spectrum. The rationale for this sub – 1 GHz spectrum cap would not be affected by the proposed inclusion of 1800 MHz spectrum in a joint award process, particularly as 1800 MHz spectrum is generally more a complement (providing additional capacity) than a substitute to sub – 1 GHz spectrum in terms of its usage.

Vodafone also agrees with ComReg's preliminary conclusion that existing spectrum holdings of current licensees in the 2.1 GHz band, or in other spectrum bands, should not be taken into account in the proposed joint award.

Q3. Do you agree with ComReg's proposal to use two temporal lots as proposed for the sub-1 GHz spectrum, namely early 2013- 12th July 2015 and 13th July 2015 – 12th July 2030, in the joint award including the 1800 MHz band? Please give reasons for your view.

Vodafone considers that our proposed modified auction approach as set out in a previous section of this response, if feasible, is a superior approach that does not involve use of a temporal lots approach and thereby has the advantage of being less complex than ComReg's proposed approach while also fulfilling statutory regulatory objectives.

Without prejudice to this view as previously set out, if the current expiry dates of existing licences continue to stand then Vodafone does not agree with ComReg's proposal to use two temporal lots uniformly across the 800 MHz, 900 MHz, and 1800 MHz bands in a joint award process as currently proposed. We consider that it would be appropriate to use two temporal lots for the time slices specified by ComReg in respect of the 900 MHz and 1800 MHz bands. However only a single temporal lot covering the period early 2013 – 12th July 2030 should be implemented in respect of spectrum lots proposed to be awarded in the 800 MHz band.

In Vodafone's response to ComReg consultation document 10/71, question 11, we set out the basis for our view, in the context of the proposed joint award of 800 MHz and 900 MHz spectrum, that a two temporal lots approach should not be implemented in respect of spectrum in the 800 MHz band. In particular Vodafone noted that the primary rationale for use of a time disaggregated packaging (temporal lots) approach in earlier proposals for an auction for the 900 MHz band only was to avoid inefficiencies and competitive distortions in the allocation of spectrum that would arise from a time aggregated approach given the later date of expiry of Meteor's 900 MHz licence relative to the other existing licensees. Indeed the timing and duration of the temporal lots proposed in consultation 10/71 and the present consultation are directly based on the differing expiry dates of the existing 900 MHz licences. However as there are no existing mobile licences with differing termination dates in the 800 MHz band, there does not appear to be any justification for replicating the temporal lots approach for 800 MHz spectrum in the context of a joint award process. Vodafone considers that the points raised in our response to ComReg's previous consultation document are no less valid in the context of the proposed joint award process that would also include spectrum usage rights in the 1800 MHz band.

Given that, as in the case of 900 MHz licences, the date of expiry of Meteor's 1800 MHz licence also differs from that of the other existing 1800 MHz licensees, it would however be appropriate to adopt a temporal lots approach to the allocation of 1800 MHz spectrum usage rights to avoid possible inefficiencies in the allocation of spectrum usage rights at 1800 MHz.

With regard to the timing of temporal lots, Vodafone considers that issuing licences for 1800 MHz spectrum based on 2 temporal lots that exactly reflect those currently proposed for 900 MHz spectrum is the optimal approach once the greater potential costs associated with a 3 temporal lots approach in terms of greater complexity and additional transitional issues are fully taken into account. However, the 6 ½ month difference between the expiry date of Vodafone and O2's existing individual 1800 MHz licences and the proposed commencement date of new 1800 MHz licences in the second time slice would present serious challenges to efficient spectrum use and continuity of service under some auction outcome scenarios, as ComReg has identified. Vodafone considers that it is essential that ComReg effectively addresses this potential problem by pre-committing to provide Interim Licences to Vodafone and/or O2 in the event that this is necessary in scenarios where the licensees would acquire new licences for the second temporal lot in the 1800 MHz band but would not otherwise have access to sufficient, or any, 1800 MHz spectrum to

maintain current levels of service to their customers in the period from 31 December 2014 to 13 July 2015.

The Interim Licences required under these scenarios should, as in the case of the 900 MHz Interim Licence proposal set out by ComReg in document 10/71, be of sufficient duration to fully bridge the time period between the expiry of existing 1800 MHz licences and the commencement of new licences awarded in the second temporal lot under the current spectrum auction proposals. This issue is addressed further in the response to question 4 below.

Q4. Do you agree with ComReg's approach in relation to the period between the expiry of Vodafone and O2's respective GSM 1800 MHz licences and the proposed commencement date of licences for the "second time slice" in the 1800 MHz band? Please provide reasons for your view.

Vodafone considers that our proposed modified auction approach as set out in a previous section of this response, if feasible, would avoid the potential issue of a 6 ½ month gap between the expiry of Vodafone and O2's respective GSM 1800 MHz licences and the proposed commencement date of licences for the second temporal lot.

Notwithstanding this position, if ComReg's current general licensing proposals are implemented then the potential for a temporary loss of access to the 1800 MHz by one or more existing licensees in the first half of 2015 that would be realised under certain auction outcome scenarios can be effectively forestalled only by the granting of Interim 1800 MHz licences, where requested by existing licensees, for the relevant period. This is necessary so as to provide regulatory certainty to the market, maximise efficient use of the spectrum resource, and avert the risk of temporary but considerable degradation of service quality in the many areas of high traffic demand where 1800 MHz spectrum is used by existing licensees to provide capacity.

Vodafone notes that ComReg has considered the issue of granting Interim 1800 MHz licences and has not ruled out considering future applications for interim rights of use in the band for the relevant period. However Vodafone does not agree with ComReg's preliminary conclusion that the granting of Interim GSM 1800 MHz spectrum rights of use are unlikely to be required following auction outcomes where existing 1800 MHz licensees would not otherwise have access to any, or sufficient, 1800 MHz spectrum in the first half of 2015.

Even if it were the case that the 2 ½ year period of notice of this temporary loss of 1800 MHz access were adequate to enable licensees to undertake effective mitigation measures, which has not been established by ComReg, requiring operators to incur potentially significant costs in dealing with a temporary discontinuity in access to 1800 MHz spectrum arising from a flaw in the structure of ComReg's proposed auction approach cannot be regarded as efficient or consistent with ComReg's statutory objectives. Moreover the opportunity cost of granting Interim 1800 MHz licences, where required, is extremely low to non-existent as it would assign rights of use for spectrum that would not otherwise be in use for the relevant 6 ½ month period. Indeed by permitting continued use of spectrum for delivery of communications services of high social and economic value that would otherwise remain unutilised for the period the granting of Interim 1800 MHz licences would fulfil the statutory regulatory objectives of maximising the efficient use of spectrum and promoting the interests of end users.

Given the major benefits of granting Interim 1800 MHz licences in circumstances where one or more existing licensees would temporarily lose access to 1800 MHz that it may still require, and

the lack of any discernible disadvantages to doing so, Vodafone considers that it is necessary and justified on public policy grounds for ComReg to make a firm advance commitment to grant 1800 MHz Interim Licences to existing licensees where they apply for these to avoid a temporary loss of access to sufficient spectrum in this band to provide services to their customers.

Q5. Do you agree with ComReg’s view that there are important benefits to be obtained from designing the auction to ensure that new licences will comprise of contiguous spectrum assignments in the first time slice? Please provide reasons for your view.

Yes. Vodafone considers that it is of central importance that the finalised auction design ensures that new licences will comprise of contiguous blocks of spectrum in the first time slice in both the 900 MHz and 1800 MHz bands in order to avoid sub-optimal spectrum allocation outcomes from the spectrum award process. In the absence of this feature there would be a significant risk that the allocation of spectrum would be fragmented leading, as ComReg has identified, to increased requirements for co-ordination boundaries with neighbouring licensees, more intensive and ongoing inter-operator co-ordination, and reduced flexibility for licensees in fully utilising their spectrum usage rights to the benefit of their customers. There would also be the potential for inefficient under-utilisation of spectrum which would not be consistent with ComReg’s statutory objective of ensuring the efficient use of the scarce spectrum resource.

Q6. Do you agree with ComReg’s proposal to introduce a “full assignment round” into the first time slice of the 900 MHz and 1800 MHz bands? Please give reasons for your view.

Yes. Vodafone considers that the benefits of implementing a “full assignment round” approach for the first time slice of the 900 MHz and 1800 MHz bands in an award process would considerably outweigh the costs. This approach would effectively guarantee that the spectrum allocation process would lead to the assignment of contiguous spectrum blocks with all of the major efficiency benefits previously outline in response to question 5. The costs are comparatively modest and relate primarily to bringing forward in time a required re-tuning or re-location in the spectrum band which would in any event have occurred at a later date as a result of many of the potential outcomes of the proposed spectrum award process.

Vodafone considers that the “full assignment round” approach is clearly superior to the alternative “all or nothing” approach identified by ComReg to ensure spectrum contiguity as the latter does not completely preclude the potential for spectrum award outcomes characterised by fragmentation of licensee’s spectrum usage rights.

Q7. Do you consider it appropriate that ComReg would provide compensation to a GSM licensee, in either the 900 MHz or 1800 MHz band, for required relocation costs that otherwise would have been avoided? Please give reasons for your view.

Yes. In the case where an existing GSM licensee did not acquire spectrum in the second temporal lot and did not avail of the early liberalisation option in the first temporal lot in respect of some of all of their existing spectrum allocation then it would be reasonable for such licensees to be appropriately compensated for the efficient costs that they would incur in being required to

relocate. In all other circumstances it would be neither appropriate nor justified to grant compensation to licensees.

To the extent possible, this compensation should in Vodafone's view take the form of a discount off any fees required to be paid by the licensee(s) arising from any spectrum usage rights allocated to them as an outcome of the award process, or alternatively as a discount off of the annual spectrum usage fees required to be paid by them for the remaining terms of their existing 900 MHz and/or 1800 MHz licences. The payment of such compensation to any licensees should not be funded by other spectrum licensees or licence applicants, either directly or indirectly.

Q8. Do you agree with ComReg's proposal to adopt an early liberalisation approach for both the 900 MHz and 1800 MHz bands? Please provide reasons for your view.

Without prejudice to Vodafone's views in relation to the liberalisation of existing and Interim licences in the 900 MHz and 1800 MHz bands as set out previously in this document and in our response to ComReg consultation document 10/71, in the context where there would be no liberalisation of existing licences at 900 MHz and 1800 MHz, Vodafone agrees that an early liberalisation option as currently proposed should be available. This early liberalisation option should effectively encourage earliest possible liberalisation of the entire 900 MHz and 1800 MHz bands and to minimise potential competitive distortions arising from restricted access to liberalised spectrum.

Q9. Do you agree with ComReg's "rebate" proposal for 900 MHz and 1800 MHz GSM licences? Please provide reasons for your view.

Yes. Vodafone considers that, in the context where there would be no liberalisation of existing licences at 900 MHz and 1800 MHz, the benefit of early access to liberalised spectrum would on its own be likely to be a sufficient incentive for Meteor to avail of the early liberalisation option in respect of at least 2 X 2.2 MHz of its existing 2 X 7.2 MHz in the 900 MHz band. However in order to effectively encourage take-up of the early liberalisation option by the current 1800 MHz licensees in respect of most or all of their existing spectrum usage rights, a rebate on the basis of the remaining terms of the licences as currently proposed by ComReg would be both objectively justified and necessary .

Vodafone notes that ComReg has not specified how the proposed rebate would be implemented or funded. To the extent possible, the rebate should in Vodafone's view take the form of a discount off any up-front fees and/or annual spectrum usage fees that would otherwise be required to be paid by the licensee(s) arising from any spectrum usage rights allocated to them as an outcome of the award process. The payment of a rebate to any licensees should not be funded by other spectrum licensees or licence applicants, either directly or indirectly.

Q10. Do you agree with the proposed methodology for setting licence fees for 1800 MHz spectrum? Do you agree with the proposed minimum price for 1800 MHz spectrum to be set at 50% of the proposed minimum price for sub-1 GHz spectrum, split 50/50 between an upfront reserve price, and annual spectrum usage fees? Please provide reasons for your view.

Methodology

No. In Vodafone's responses to ComReg documents 09/99 and 10/71, we set out comprehensively our position that ComReg's proposed benchmarking approach to the setting of licence fees for 900 MHz and 800 MHz spectrum usage rights is inappropriate and disproportionate as it is based on the incorrect assumption that it is both necessary and proportionate to use the level of the minimum price as a tool to minimise the incentives for strategic behaviour or collusion in an auction. We demonstrated that any concerns around the scope for potential anti-competitive behaviour were already effectively addressed through the proposed auction format and the implementation of other measures in the auction rules.

ComReg's current proposals relate essentially only to the inclusion of spectrum usage rights for the 1800 MHz band in the joint award process, the setting of a minimum licence price for 1800 MHz spectrum blocks on the basis of a 'relativity analysis' that is closely linked to the benchmarking approach used to derive the current proposed common minimum price for 900 MHz and 800 MHz spectrum, and a largely unchanged auction format from that previously set out. Vodafone's arguments as set out in our responses to consultation documents 09/99 and 10/71 therefore remain equally valid in regard to the methodology for the setting of licence fees for the 1800 MHz band.

Vodafone notes that ComReg conceded, in document 10/71¹, that the addition of the 800 MHz spectrum band into the award process (compared to previous proposals for an award process for 900 MHz spectrum only), the resulting scope for introducing a higher spectrum cap, and the possibility of additional bidders partaking in the auction significantly reduced ComReg's previous concerns regarding the risk of tacit collusion, as there appeared to be a much wider potential range of outcomes that could occur in terms of how each operator could opt for either or both of the available bands than there may have been with the 900 MHz band alone. Given that the supply of spectrum to be awarded in the proposed auction would more than double with the addition of 1800 MHz spectrum to the award process, and the overall spectrum cap is currently proposed to increase from 2 X 20 MHz to 2 X 50 MHz, any risk of collusive behaviour must be negligible, and even lower than in the case of a joint award process for 900 MHz and 800 MHz spectrum only. Therefore the optimal minimum licence price for 1800 MHz spectrum is that which is sufficient only to deter frivolous or speculative bidders, and the economic value of the spectrum can then be best determined primarily through the auction process.

Vodafone does not consider it necessary to restate in full here our previous assessment on the appropriate high-level methodology for the setting of spectrum licence fees included in our responses to ComReg's previous consultation documents 09/99 and 10/71. However our earlier comments are of equal relevance to the setting of licence fees for 1800 MHz spectrum and we would refer ComReg to these.

¹ ComReg document 10/71, p45

Level of Minimum Price

The current proposed minimum price of €12.5 million per 2 X 5 MHz block of 1800 MHz spectrum is essentially derived from the benchmarking approach used by ComReg and DotEcon to obtain the minimum price for 900 MHz and 800 MHz spectrum blocks. Therefore even if a benchmarking approach were appropriate in principle to apply in setting the minimum price for sub-1 GHz spectrum (and indirectly in respect of 1800 MHz spectrum), which Vodafone does not accept, the serious shortcomings in the practical implementation of the benchmarking approach for determining 800 MHz and 900 MHz minimum licence prices previously identified by Vodafone (including the very limited data available on prices paid for liberalised spectrum in the sub-1 GHz bands in other jurisdictions) mean that the current proposed 1800 MHz minimum licence price is also inappropriately high.

In addition to the deficiencies of the overall benchmarking approach to the determination of the minimum price of sub-1 GHz licences, and its knock-on effect on the absolute level of the proposed 1800 MHz minimum licence price under the current methodology, Vodafone does not believe that the relativity analysis used is a valid basis for setting a minimum price for 1800 MHz spectrum lots. While it is appropriate to assume that the sub – 1 GHz spectrum bands are of greater value than higher frequency bands such as 1800 MHz (due to factors such as the differing propagation characteristics of these bands) Vodafone considers that it is inappropriate to draw conclusions about a reasonable relative valuation of 1800 MHz spectrum from the very limited amount of international data available for benchmarking purposes. It is questionable whether these conclusions are made more robust by the cross-checks carried against technical studies when the theoretical cost savings of utilising sub-1 GHz versus 1800 MHz spectrum provided are based on simplifying assumptions that limit their relevance to real-world valuation in a spectrum award process.

Given the serious limitations and uncertainties associated with the available data, if ComReg determines that a relativity analysis is an appropriate approach to the setting of a minimum price for 1800 MHz spectrum lots then it is essential that a precautionary approach is adopted. In current circumstances the risks to achieving statutory regulatory objectives such as maximising the efficiency of use of spectrum would arise almost entirely from setting the 1800 MHz minimum price too high rather than too low, and a precautionary approach therefore requires that ComReg set the price at a very low level.

In the context of a proposed auction design and rules which effectively address any concerns around scope for strategic behaviour or tacit collusion in the award process, there is essentially no disadvantage to setting a price significantly lower than available data indicates would be reasonable. Competitive bidding in the course of the auction will ensure an efficient auction outcome. However if a precautionary approach is not adopted, and the minimum prices for 1800 MHz spectrum blocks are set in line with relative valuations suggested by current benchmarking data, with its clear limitations, then this could only have the effect of increasing the risk that the minimum price would be set above the efficient level, leading to existing 1800 MHz spectrum going unallocated – a clearly inefficient auction outcome.

Vodafone does not therefore consider that the current ComReg proposal to set a minimum price for 1800 MHz spectrum at 50% of the minimum price of sub-1 GHz spectrum is consistent with the adoption of the necessary precautionary approach. We believe that if the minimum price of 1800 MHz spectrum blocks is to be set relative to sub-1 GHz spectrum then it should be no higher than 30% of the price of sub-1 GHz spectrum.

Structure of Minimum Price

In Vodafone's responses to ComReg documents 09/99 and 10/71 we expressed our disagreement with the proposed structure of the reserve prices and spectrum usage fees (SUFs) and the rationale for our position. The reasons for Vodafone's view are not affected by the proposed inclusion of spectrum usage rights in a joint award process also including the sub-1 GHz spectrum bands. We consider that it is both proportionate and justified that most of the licence price of the spectrum should be captured in the up-front payment and that this approach to the structure of the payment of the licence price must be adopted for the spectrum in each of the bands to be included in the joint award process.

Q11. Do you agree with ComReg's proposal to set a 2:1 ratio in relation to the eligibility points awarded to lots in the sub-1 GHz and 1800 MHz bands, whereby twice as many eligibility points would be awarded for sub-1 GHz lots as for lots in the 1800 MHz band? Please provide reasons for your view.

Vodafone agrees that switching between 1800 MHz and sub-1 GHz spectrum must be allowed in an auction and we consider that different weightings for eligibility points between 1800 MHz and sub-1 GHz spectrum is a reasonable approach in principle. However it must be emphasised that the appropriate value differential between the 1800 MHz and sub- 1 GHz spectrum bands will be determined by the auction process, not by the minimum price or the relative valuation that could be inferred from the proposed ratio in eligibility points between the lot types..

Q12. Do you agree with ComReg's proposal regarding coverage and roll-out obligations? Please provide reasons for your view.

Vodafone set out its general position in respect of coverage and roll-out obligations to be attached to the proposed new licences for sub-1 GHz spectrum for assignment in a joint award process in our response to ComReg document 10/71. Our views in respect of the coverage and roll-out obligations to apply to the new 1800 MHz licences now proposed to be included in the spectrum award process are consistent with our previously stated views in respect of sub-1 GHz spectrum.

Vodafone agrees with ComReg's proposals to set a symmetric population coverage obligation of 70% to all licences (whether for sub-1 GHz or 1800 MHz spectrum usage rights), to allow multiple frequencies bands to count towards the coverage and roll-out obligations, and to not allow coverage via national roaming to count towards fulfilment of these obligations. These measures should provide the appropriate incentives for efficient and sustainable infrastructure based competition between licensees to the benefit of consumer welfare and the national economy.

In relation to the issue of National Roaming counting towards the coverage requirements we note Hutchison 3G Ireland's (H3GI) previous consultation response where it indicated that it required an early allocation of liberalised 900MHz spectrum in order to eliminate its dependence on National Roaming. In this context it would appear that national roaming is an alternative to spectrum access rather than a complement to it. **[Redacted]** This supports Vodafone's view that it would not be appropriate to allow national roaming to count towards coverage targets.

We disagree with ComReg's proposal that an asymmetric roll-out obligation should apply to licences, with those licensees with an existing mobile network being required to meet the coverage obligation within 3 years of licence award, while new entrants to the Irish mobile market would be allowed 7 years to reach the same 70% population coverage target. The proposal to allow a new entrant to potentially offer only a very low level of coverage for up to the first 6 years of the licence term does not adhere to ComReg's statutory regulatory obligations to ensure the efficient use of the spectrum and to promote competition.

If, despite Vodafone's view, ComReg nonetheless determines that an asymmetric roll-out obligation for new entrants is appropriate then it would be more consistent with ensuring efficient utilisation of spectrum to require licensees to meet progressively higher roll-out targets by specified dates prior to achieving the proposed final target of 70% population coverage within 7 years of licence award. For example an obligation to roll-out coverage to 30% of the population after 3 years and to 50% of the population after 5 years would be a superior way of specifying an obligation for new entrants, in terms of achieving ComReg's statutory regulatory objectives, than the current proposal.

It remains our position however that a symmetric roll-out obligation on all licensees to meet the coverage obligation within 3 years of licence award is the most appropriate and proportionate approach.

With regard to the proposals for each of the three scenarios for 1800 MHz licensees analysed by DotEcon, Vodafone considers that ComReg's preliminary conclusions regarding the requirements for a separate 1800 MHz coverage obligation are reasonable.

Q13. Do you agree with ComReg's proposed approach in relation to transitional issues that may arise in the 1800 MHz band in the period leading up to 1800 MHz availability? Please provide reasons for your view.

Vodafone agrees that a flexible approach to necessary transitional activities (re-tuning and/or re-location) within the 1800 MHz band, as currently proposed, is both appropriate and necessary.

In our response to ComReg document 10/71, Vodafone set out that it would be impractical, and likely insufficient, to seek to set out in advance the precise steps that would have to be undertaken by licensees in each of the wide range of outcomes that may be realised from a joint award process for the 800 MHz and 900 MHz spectrum bands. A flexible approach is even more necessary in respect of a joint award process extended to also include the 1800 MHz band given the even wider range of possible auction outcomes that could arise.

Vodafone has no objection to the actual findings of the analysis carried out in ComReg document 10/105b in terms of the steps, timescales, and costs involved in completing re-tuning and/or relocation of spectrum assignments by existing licensees in the 1800 MHz band. However Vodafone notes that the scope of the analysis operated on the assumption that existing operators would obtain at least 2 X 15 MHz of spectrum each as a result of the proposed joint spectrum award process, and does not consider the implications where one or more of the existing 1800 MHz licensees were to obtain a reduced spectrum allocation in the band in the auction. However there is no certainty that all of the existing licensees will obtain new licences for a minimum of 2 X 15 MHz of 1800 MHz as assumed in the Red-M/Vilicom report, and it is the scenarios where existing licensees would obtain a reduced, or no, new 1800 MHz spectrum allocation that would

lead to substantial costs, delays, and the risk of potential disruption to, or degradation of the quality of, communications services provided to end users.

Vodafone acknowledges the reasons set out by Red-M/Vilicom in section 2.5 of their report as to why no quantification of these scenarios has been undertaken and we consider the very high complexity of such an exercise is a justifiable basis for not doing so. However the fact that these adverse auction outcomes have not been considered in the report does not mean that they can be overlooked in ComReg's decision. In light of the limited scope of the assessment of transitional arrangements carried out, Vodafone considers that ComReg does not have sufficient evidence to conclude that the timeframes associated with the joint award process would be sufficient for the operators to address necessary transitional arrangements in relation to relocation within the 1800 MHz band. Accordingly, it is imperative that ComReg adhere to the flexible approach to transition as set out in section 4.2 of the current consultation.

Q14. Do you agree with ComReg's proposal for ensuring continuous spectrum assignments across time slices for the 800 MHz, 900 MHz and 1800 MHz bands where a bidder wins the same amount of spectrum in the two time slices? Please provide reasons for your view.

Yes. Vodafone agrees that it is desirable that the probability of a requirement for re-location of spectrum assignments in each band between time slices is minimised. Accordingly the constraint proposed by ComReg (that where a bidder is awarded the same number of blocks in a band in both time slices, bidders would only be able to choose from assignment options that would allocate to them the same frequencies in both time periods) is objectively justified and proportionate and must be incorporated in the auction design.

In the case where a bidder wishes to obtain the same amount of spectrum lots in a band in both time slices Vodafone does not believe that it is likely that there would be any discernible benefit for a bidder in acquiring spectrum usage rights in different frequencies within a band between the two time periods relative to acquiring a continuous spectrum assignment within a band across the time slices. Having the option of choosing non-continuous spectrum assignments across the two temporal lots therefore appears to have very little, if any, value. Indeed provisions to ensure continuous spectrum assignments, by minimising the potential for further costs in re-tuning and/or relocation prior to the commencement of licences for the second time slice, would be of unambiguous benefit to licensees.

Q15. Do you agree with ComReg's proposal that it is not appropriate that the assignment options presented to bidders are only limited to those options involving a partial relocation? Please provide reasons for your view.

Yes. Vodafone considers that there is unlikely to be a significant difference in the costs to licensees between partial and full relocation of frequencies within the 1800 MHz band. Consequently any benefit of the proposal to limit assignment options to bidders to those involving a partial relocation would be significantly outweighed by the cost of the reduction in the choices and flexibility available to bidders in the auction process. This latter cost would raise the risk of sub-optimal outcomes from the proposed joint award process.

Q16. Do you agree with ComReg’s proposed approach in relation to transitional issues that may arise in the 1800 MHz band (between time slices)? Please provide reasons for your view.

Yes. It would not be appropriate to delay availability of spectrum blocks in the second time slice to make allowance for transition arrangements to be completed.

In Vodafone’s response to ComReg consultation document 10/71 in respect of the proposed joint award for spectrum rights of use in the 800 MHz and 900 MHz bands we argued that as the requirement for such transition arrangements would arise solely as a result of a winning bidder’s own decisions in an auction process, they should be fully incorporated in a bidder’s plans and therefore deferral of availability of availability of spectrum blocks in the second time slice could not be objectively justified. This factor is of equal validity in respect of the proposed temporal lots approach to the allocation of spectrum in the 1800 MHz band.

Q17. Do you agree with ComReg’s proposal to issue ‘preparatory licences’ to winners of liberalised spectrum rights of use in the 1800 MHz band? Please provide reasons for your view.

Yes. Consistent with our position as set out in response to ComReg consultation document 10/71 in respect of the 800 MHz and 900 MHz bands, Vodafone believes that installation of equipment for use of spectrum in the 1800 MHz band must be facilitated sufficiently in advance of the commencement date of proposed new 1800 MHz licences so as to ensure the earliest possible provision of advanced mobile broadband services to the benefit of end users.

Vodafone also supports the granting of ‘test licences’, where possible, to enable the testing of these networks and equipment.

**4.1 Paper submitted by Vodafone Ireland, compiled by McCann
Fitzgerald**

**State Aid and ComReg's Interim Licence Proposal:
Some Observations on behalf of Vodafone Ireland**

28 January 2011

1. Introductory Comments

1.1 H3GI's Submission

In its submission dated 29 October 2010 and published in redacted form by ComReg on 7 January 2011 ("H3GI's Submission" or the "Submission"), H3GI puts forward the proposition that the implementation of ComReg's Interim Licence Proposal would involve illegal State aid to each of Vodafone Ireland and O2 in breach of Article 107 TFEU¹.

Vodafone Ireland submits that H3GI's analysis of the application of Article 107 TFEU is wrong and is in large part based on a misunderstanding (or disregard) of the relevant EU Court authorities (in particular, the judgments of the Court of First Instance ("CFI") and the Court of Justice of the European Union ("ECJ") in the *Bouygues* case²), that H3GI has failed to establish that the Interim Licence Proposal would involve aid contrary to Article 107 TFEU and that, because they are wrong and without merit, H3GI's arguments on the application of Article 107 TFEU should not form any part of ComReg's assessment in connection with the Interim Licence Proposal.

1.2 Article 107 TFEU

As ComReg is aware, Article 107(1) TFEU lays down four conditions that must be satisfied for a measure to be regarded as State aid. Those conditions are summarised in the following terms by the ECJ in *Bouygues*:

*"(i) there must be an intervention by the State or through State resources; (ii) the intervention must be liable to affect trade between Member States; (iii) it must confer an advantage on the recipient; (iv) it must distort or threaten to distort competition."*³

The four conditions are cumulative; all must be satisfied for a measure to be regarded as State aid. If one of the conditions is not satisfied, the measure in question is not aid within the meaning of Article 107(1). In other words, if H3GI is to succeed in establishing its proposition that the Interim Licence Proposal would involve aid contrary to Article 107, it must show that all four conditions in Article 107(1) are present.

1.3 The deficiencies in H3GI's Submission

¹ See Section 10, H3GI Submission

² Case C-431/07 P, *Bouygues SA and Bouygues Télécom SA-v- Commission of the European Communities*, judgment 2 April 2009 ("*Bouygues* ECJ"); Case T-475/04 *Bouygues SA and Bouygues Télécom SA-v- Commission of the European Communities*, judgment 4 July 2007 ("*Bouygues* CFI"). The CFI and ECJ judgments in the *Bouygues* case are the leading authorities on the application of the State aid rules to regulatory measures licensing the use of radio spectrum. H3GI relies on the *Bouygues* case in its submission on State aid. For those reasons, the background to the judgments is summarised in Annex 1.

³ *Bouygues* ECJ 102

In Vodafone Ireland’s submission, the State aid analysis set out in H3GI’s Submission is deficient in particular in respect of the first, third and fourth conditions in Article 107(1):

- In respect of the first condition, the transfer of State resources, H3GI misrepresents the views of the European Courts in *Bouygues* and fails to take any account of the specific legal framework at EU level under which ComReg will act in awarding the interim licences;
- In respect of the third condition, the existence of selective advantage, H3GI fails to take account of the overall context in which ComReg makes its Interim Licence Proposal, namely the general scheme of the system of EU communications law (including the principle of non-discrimination); and
- In respect of the fourth condition, the distortion of competition, H3GI’s error seems to result from a false appraisal of the impact of the Interim Licence Proposal on competitive conditions in the market.

2. State Resources

2.1 H3GI’s argument on State resources

As regards the first condition for the existence of aid, the Commission says “*State aid rules cover only measures involving a transfer of State resources*”⁴.

On this State resources condition, H3GI expresses its argument quite simply in its Submission: “*Both the Court of First Instance (“CFI”) and the European Court of Justice in Bouygues accepted that a licence to use certain spectrum for 3G services has an economic value so that such licence is a State resource.*”⁵

In Vodafone Ireland’s submission, there is no authority for this proposition; it is not correct to say that EU State aid law treats the grant by a regulatory authority of a licence to use radio spectrum *per se* as a transfer of State resources within the meaning of Article 107(1). Neither judgment in the *Bouygues* case provides any support for this proposition.

To the extent that the judgments in *Bouygues* touch on the State resources condition, the issue arises not because of the State’s grant of licences to use radio spectrum but because, after granting those licences, the State had partially waived its claim to payment from the first two licensees. The discussion in the *Bouygues* case, insofar as it is relevant to the State resources condition, is focused entirely on the *ex post* nature of the fee waiver. ComReg will note that Bouygues, the applicant/appellant in the *Bouygues* case, did not seek to argue (as H3GI does in its Submission) that the grant of a licence to use radio spectrum was *per se* a transfer of State resources within the meaning of Article 107(1). Instead, Bouygues focussed on the *ex post* waiver of fees by the French regulator, as the CFI explains clearly in this summary of the applicants’ argument: “*First, [Bouygues] contend that there was a transfer of State resources, because the French authorities waived their right to collect a payable claim*” (emphasis added).

2.2 State resources in *Bouygues*

The State resources issue is not central to the judgments in the *Bouygues* case (which are focussed largely on the selective advantage/discrimination issue). However, issues related to the State resources conditions are reviewed in the CFI judgment (principally in paragraphs 100 to 106). The ECJ (in paragraphs 149 to 151 of its judgment) cites with approval the passages in the CFI’s judgment that are relevant to the State resources issue.

⁴ European Commission, *Vademecum – Community Law on State Aid* (30 September 2008) (“*Vademecum*”) p.6

⁵ H3GI Submission, p. 22

So what guidance does the CFI judgment in *Bouygues* provide on the State resources condition? It seems reasonable to draw the following conclusions (particularly from paragraph 106 of the judgment):⁶

- First, it notes that mobile telecommunications licences have an economic value⁷ that communications regulators are bound to take into account when they determine the amount of fees to be paid by the operators involved⁸;
- Secondly, the issue of the transfer of State resources arose only because the French authorities waived their right to a significant part of the spectrum fee due from the licensees after it had issued the licences⁹; and
- Thirdly, even if the national authorities waive their right to a significant part of a fee due, this is not conclusive of the State resources question; account must be taken of the circumstances of the waiver and the nature and general scheme of the legislative system under which the regulator is operating.

2.3 Applying the State resources analysis in *Bouygues* to the Interim Licence Proposal

In analysing the application of the State resources condition, the most obvious difference between the situation in *Bouygues* and ComReg's Interim Licence Proposal is the absence of any suggestion on ComReg's part that it will forego any part of the fee it proposes to impose on the current GSM operators in respect of their interim use of 900 MHz spectrum. ComReg proposes that the operators should pay a fee, adopted in conformity with the Irish and EU legal framework; there is no suggestion of an *ex post* rebate or reduction (as in the *Bouygues* case).

H3GI's Submission (at page 22) includes the suggestion that the interim allocation of spectrum to Vodafone Ireland and O2 "would amount to the transfer of State resources as it involves the State foregoing income it would otherwise have received under the competition and delays the receipt of other resources". Essentially, H3GI is saying that a spectrum grant involves the transfer of State resources because when the State through ComReg fixes a fee for spectrum usage it is foregoing the possibility of obtaining a higher fee for the use of the same spectrum during the currency of the licence. This is a much more expansive interpretation of the State resources concept than can be justified on a reading of the two judgments in the *Bouygues* case. The H3GI position is also much more expansive in its scope than the position adopted by the applicants/appellants in *Bouygues*.

The consequences of H3GI's expansive reading of Article 107(1) are stark (and tend to highlight its wrong-headedness). Any spectrum allocation decision could be regarded as a transfer of State resources because it might involve the State foregoing income it would otherwise have been able to obtain. On the basis of H3GI's interpretation of Article 107(1), most (if not all) spectrum allocation decisions would automatically satisfy the State resources condition in Article 107(1) where the possibility existed of a higher yield to the State from the spectrum during the currency of the licence. This is obviously absurd; it ignores the existence of the specific legal framework in place for the communications sector at EU level and the fact that the framework is based on a logic of market regulation that demands objective, non-discriminatory and transparent treatment in the award of rights to use radio spectrum, taking into account the need to maximise benefits to users, ensure optimum utilisation of scarce resources and facilitate the development of competition. H3GI fails

⁶ *Bouygues* CFI, 106: "However, even if, taking into account the economic value of the licences, it must be conceded to the applicants that the national authorities waived their right to a significant part of State resources in the present case, this conclusion must be tempered in the light of the claim in question and, moreover, this loss of resources does not necessarily constitute a State aid by reason of the nature and general scheme of the system."

⁷ Citing Case C-462/99 *Connect Austria* [2003] ECR I-5197, paragraph 93

⁸ *Bouygues* CFI 101

⁹ *Bouygues* CFI 106

entirely to understand that ComReg when exercising this particular State function is not engaged in a profit maximisation exercise but seeks to ensure the development of healthy and fair competition.¹⁰

Because it fails to acknowledge the special context within which ComReg exercises its functions in respect of the awarding of rights to use radio spectrum, H3GI fails to understand that the review of ComReg's Interim Licence Proposal under Article 107(1) must take account of "the special nature of Community telecommunications law as opposed to the ordinary law on State aid"¹¹. This point was fundamental to the CFI and ECJ judgments in the *Bouygues* case which essentially find that no State aid was involved in the fee waiver because the measures adopted by the French regulator were consistent with the nature and general scheme of the EU regulatory system.

Unlike H3GI, ComReg has understood the interplay between the special nature of Community telecommunications law and the ordinary law on State aid. In its Consultation Paper No10/71¹², ComReg has explained that it proposes to put the interim licences in place because it is necessary to do so in order to discharge its statutory and regulatory obligations, citing in particular the necessity of safeguarding existing competition from serious deterioration and protecting end users until such time as the proposed joint award and availability of 800 MHz and 900 MHz bands on a liberalised basis can occur.

In summary, although the interim licences proposed by ComReg may have an economic value, no transfer of State resources is involved because their award is consistent with the nature and general scheme of the EU regulatory system.

3. Selective Advantage

3.1 Advantage and Selectivity

The second condition for the presence of aid under Article 107(1) is that the measure in question should confer a selective advantage on the beneficiary. The Commission explains the concepts of "advantage" and "selectivity" in the following terms: "*The aid should constitute an economic advantage that the undertaking would not have received in the normal course of business*"; "*State aid must be selective and thus affect the balance between certain firms and their competitors. "Selectivity" is what differentiates State aid from so-called "general measures" (namely measures which apply without distinction across the board to all firms in all economic sectors in a Member State (e.g. most nation-wide fiscal measures)).*"¹³

In Vodafone Ireland's view, ComReg's Interim Licence Proposal, when implemented, will not confer a selective advantage on the current 900 MHz operators because it will result from an exercise by ComReg of its regulatory powers within the general scheme of the system of EU communications law in a manner consistent with the principle of non-discrimination.

This analysis of the selective advantage condition in the context of the exercise of a regulatory power is supported, in Vodafone Ireland's view, by the judgments of the CFI and ECJ in the *Bouygues* case. The correct position concerning the interplay between the exercise of powers under EU communications law and the State aid rules is summarised by the ECJ in *Bouygues*: "*the absence of a selective advantage resulted from the application of the Community framework for telecommunications services*".¹⁴

¹⁰ *Bouygues* CFI 71 provides a useful summary of the Commission's view on these issues (which the Courts did not contradict in their judgments)

¹¹ *Bouygues* ECJ 21; *Bouygues* CFI 111

¹² Section 3.1, page 26.

¹³ European Commission, *Vademecum*, p6

¹⁴ *Bouygues* ECJ 72

The *Bouygues* case concerned a reduction or waiver of the fees due from two operators who had been awarded rights to use spectrum; the CFI (confirmed by the ECJ) found (in the words of the ECJ) that “by reason of the general scheme of the system of Community telecommunications law, the waiver of the claims at issue was not covered by the concept of State aid incompatible with Community law”. In the case of the ComReg’s Interim Licence Proposal, Vodafone Ireland’s view is that, also by reason of the proposal’s compliance with the general scheme of the system of EU communications law (including the principle of non-discrimination), no selective advantage is conferred and, as a result, no State aid is present.

3.2 The deficiencies of H3GI’s arguments on selective advantage

H3GI’s analysis of the selective advantage condition is deficient because it fails to consider the Interim Licence Proposal in the context of the general scheme under which it will be implemented, namely the system of EU communications law. Both the CFI and ECJ in *Bouygues* explain that where a measure falls within a general scheme, in that case (and in this case) the EU communications regulatory framework, it is not covered by the concept of State aid because it lacks any element of selectivity¹⁵. H3GI also fails to understand that ComReg’s Interim Licence Proposal is consistent with the principle of non-discrimination.

Instead, H3GI makes the simplistic statement that “the Interim Licence Proposal is clearly selective as it is only benefits Vodafone and O2”. This statement ignores the context in which ComReg’s proposal is made and its consistency with the EU general legislative scheme for communications. ComReg has explained this in Section 3.2 of its Consultation Paper 10/71, pointing out that the Interim Licence Proposal reflects the objectives and obligations under the EU regulatory framework, in particular “by facilitating the full, competitive release of the 800 and 900 MHz band, safeguarding existing competition until full 800/900 MHz spectrum availability, avoiding undue effects on the sustainability of the businesses of Vodafone and O2 and protecting end users by avoiding what would otherwise be significant disruption to GSM consumer services in the interim period”.

3.3 Absence of Discrimination

In its selective advantage analysis, H3GI says the Interim Licence Proposal confers an advantage on the current 900 MHz operators because it will have the effect of “strengthening their competitive position on the Irish mobile market by reducing the operating and investment costs it[sic] would otherwise bear”. It also produces the rather circular argument that the current 900 MHz operators acquire an advantage because H3GI does not obtain the same so-called advantage or, in H3GI’s own words, “H3GI, a competitor of those parties is not afforded such an opportunity putting it in a worse position than its rivals”.

At best, the H3GI comments quoted above can be interpreted as an unarticulated suggestion that the Interim Licence Proposal is inconsistent with the principle of non-discrimination, a key element of the general scheme of the system of EU communications law. To the extent that this is H3GI’s argument, Vodafone Ireland submits that it is wrong.

As the ECJ explains in *Bouygues*¹⁶, “it is settled law that discrimination can arise only through the application of different rules to comparable situations or the application of the same rule to different situations”¹⁷. In Vodafone Ireland’s submission, insofar as the Interim Licence Proposal is concerned, H3GI is not in a comparable situation to Vodafone Ireland or O2 for a number of fairly obvious reasons:

- Vodafone Ireland and O2 currently have rights to use 900 MHz spectrum; H3GI does not;

¹⁵ *Bouygues* CFI 108-110; *Bouygues* ECJ 42-47

¹⁶ *Bouygues* ECJ 114

¹⁷ Case C-279/93 Schumacker [1995] ECR I-225, paragraph 30; Case C-341/05 Laval un Partneri [2007] ECR I-11767, paragraph 115.

- Vodafone Ireland and O2's rights to use the 900 MHz spectrum will expire in May 2011; H3GI does not face the imminent expiry of any rights to use spectrum;
- Vodafone Ireland and O2 face the prospect of being unable to a significant extent to provide services to their customer base if there is no interim arrangement in respect their rights to use 900 MHz spectrum; H3GI does not face a similar prospect (although expiry would affect the roaming rights it has on Vodafone Ireland's 900 MHz network).

Any suggestion by H3GI that it is the victim of discrimination as a result of the Interim Licence Proposal must be rejected because, as far as the right to use spectrum is concerned, it is not in a position comparable to Vodafone Ireland and O2.

Vodafone Ireland also notes that ComReg has given detailed consideration to the application of the principle of non-discrimination insofar as it concerns the Interim Licence Proposal at Section 3.2.5 of Consultation Paper No 10/71.

3.4 Misrepresentation of ComReg's position on selective advantage

At the core of H3GI's commentary on selective advantage is the suggestion that ComReg itself has acknowledged that the Interim Licence Proposal confers an advantage on Vodafone Ireland and O2. In fact, H3GI seems so attached to this argument that it repeats it *verbatim* three times in its Submission (on pages 22, 24 and 27):

"ComReg has itself acknowledged at page 36 of the Consultation that in proceeding with the Interim Licence Proposal, it would be conferring an advantage on Vodafone and O2 relative to the other operators (including H3GI) by allowing Vodafone and O2 an additional period to obtain a return on their original investment."

Unfortunately for H3GI (and as ComReg will be aware), its argument is based on a misrepresentation of ComReg's position. ComReg did not "acknowledge" that the Interim Licence Proposal would confer an advantage on the current 900 MHz operators; instead ComReg said that an argument of advantage could be made, without accepting the validity of the argument.

3.5 Summary

In summary, the implementation of the Interim Licence Proposal will not involve a selective advantage to Vodafone Ireland (or O2) because the award will be made in accordance with the general scheme of the system of EU communications law and does not involve discrimination

4. Distortion of Competition

4.1 H3GI's argument on competitive distortion

H3GI's State aid argument on the alleged distortion of competition associated with ComReg's Interim Licence Proposal is relatively short (although similar points are repeated in more detail in Section 11 of the Submission):

"The Interim Licence Proposal will result in a distortion of competition as Vodafone and O2 will be given guaranteed access to 900MHz spectrum while H3GI must compete using more expensive 3G spectrum and technologies with all the inherent disadvantages explained above, making it more difficult for it to do business in comparison with its aided rivals."

4.2 Absence of effects-based analysis

In Vodafone Ireland's submission, H3GI fails to substantiate its claim that ComReg's Interim Licence Proposal distorts or threatens to distort competition. The most obvious reason for this failure is the

absence of any appraisal of competitive conditions in the market affected by the Interim Licence Proposal and any proper assessment of the impact of the proposed measure on that market. H3GI's argument is focussed almost exclusively on a description of the perceived disadvantage it says it will suffer rather than on an effect-based analysis of the impact of the proposed measure.

The passage of the H3GI Submission quoted above (and Section 11 of its Submission) do not contain any market analysis or assessment of the competitive impact of the Interim Licence Proposal; instead they consist of arguments that the interim licences will confer an advantage on Vodafone Ireland and O2 and discriminate against H3GI. While these issues have their place in State aid analysis, that place is not in the review of the competitive impact of the proposed measure. H3GI, particularly when it pleads for the reservation of a special allocation of 900 MHz spectrum for itself, appears to have forgotten that the purpose of competition law is to protect competition for the benefit of consumers rather than to protect competitors.

4.3 Preserving the competitive *status quo*

Because it eschews market analysis and competitive impact assessment, H3GI fails to comprehend the fundamentally conservatory nature of ComReg's proposal, an essential element in a proper analysis of its market effect.

The purpose of ComReg's Interim Licence Proposal is to preserve the *status quo* in the interim period prior to the joint release of, and assignment of rights of use in, the 900 MHz and other spectrum bands. In other words, the competitive conditions currently prevailing in what H3GI calls "the Irish mobile market" will remain unchanged while the interim licences are in force. Vodafone Ireland and O2 will retain the right to use the 900 MHz spectrum for a limited time; the rights to use spectrum currently enjoyed by H3GI and Meteor will be unaffected.

Given that the interim licences will maintain the *status quo*, Vodafone Ireland submits that for H3GI to succeed in its assertion that the grant of the interim licences will distort competition it must show that the market is currently not competitive. H3GI has not made any argument of this nature in its Submission and, in Vodafone Ireland's submission, could not make such an argument. The market that will be affected by the Interim Licence Proposal is currently competitive¹⁸ and ComReg's proposal will preserve and facilitate competition in that market.

ComReg, in compliance with its obligation to ensure that the measure it proposes facilitate the development, promotion and/or safeguarding of competition, has explained clearly and concisely in Section 3.2.2 of the Consultation Paper No 10/71 why the Interim Licence Proposal will not damage competition in the market. There is no substantive challenge to this aspect of ComReg's analysis in H3GI's Submission.

4.4 The Counterfactual

In assessing the competitive impact of the Interim Licence Proposal, ComReg has (correctly, in Vodafone's view) looked at the counterfactual of permitting expiry of the GSM licences to occur and has identified the distortions to and/or restrictions of competition and the significant consumer detriment which would result.

The expiry of the GSM licences without the grant of interim licences would result in a very significant constraint on the ability of Vodafone Ireland and O2 to provide mobile services in competition with other operators. The 900 MHz spectrum, which they use to provide a substantial part of their services, would be unavailable to them. They would also no longer be able to provide national roaming

¹⁸ In this context, Vodafone Ireland notes that, other than in respect of the market for Wholesale Voice Call Termination on Individual Mobile Networks, there is no finding of significant market power in force in respect of the Irish mobile communications sector.

services to other operators (including H3GI which has a national roaming agreement with Vodafone Ireland) and to MVNOs. The absence of these roaming services for other operators and MVNOs could be expected to affect competition to the detriment of consumers.

These highly distortive effects in the market will be avoided through the preservation of the competitive *status quo* by the implementation of Interim Licence Proposal.

5. Conclusion

The four conditions in Article 107(1) are cumulative; all must be present for a measure to be regarded as State aid. If one of the conditions is not satisfied, the measure in question is not aid.

In Vodafone Ireland's submission, the arguments advanced by H3GI in respect of at least three of the four Article 107(1) conditions are deficient.

In particular, Vodafone Ireland has identified the following failings in H3GI's arguments:

- Although the interim licences proposed by ComReg may have an economic value, no transfer of State resources is involved because their award is consistent with the nature and general scheme of the EU regulatory system.
- The implementation of the Interim Licence Proposal will not involve the grant of a selective advantage to Vodafone Ireland (or O2) because the award will be made in accordance with the general scheme of the system of EU communications law and does not involve discrimination.
- The implementation of the Interim Licence Proposal will not involve any distortion of competition; it will ensure the preservation of the competitive *status quo*

H3GI has failed to establish that the Interim Licence Proposal would involve aid contrary to Article 107(1). Its arguments are wrong and without merit and should not form any part of ComReg's assessment in connection with the Interim Licence Proposal.

Annex 1: The Background to the Bouygues Case¹⁹.

In July 2000, the French Government launched a call for applications for the award of four licences for the introduction of UMTS (Universal Mobile Telecommunications System), so-called 3G, mobile and wireless communications systems in France. Since only two applications were received and accepted – namely those from SFR and France Télécom, which later became Orange – a further call for applications was launched in order to grant the licences which had not been awarded and to ensure genuine competition. Without waiting for the launch of the supplementary call for applications, two initial licences were issued to SFR and Orange in return for the payment of fees amounting in total to EUR 4.95 billion.

Following the launch of the supplementary call for applications, a third UMTS licence was awarded to Bouygues Télécom on 3 December 2002. A fourth licence could not be awarded for lack of an applicant. In addition, by two decrees of 3 December 2002 concerning SFR and Orange respectively, the French authorities amended, inter alia, the provisions regarding fees for the provision and operation of the frequencies so as to make them identical to the provisions applied to Bouygues Télécom (20 years instead of 15 years and a financial reduction from EUR 4.95 billion to EUR 619 million plus a percentage of turnover). In January 2003, Bouygues Télécom complained to the Commission about the retroactive application of the new conditions to Orange and SFR, claiming that it constituted State aid.

By decision of 20 July 2004, the Commission rejected Bouygues Télécom's complaint on the ground that no evidence had been provided that the two other operators had obtained an advantage. In addition, it considered that the alignment of fees was not discriminatory and that the French authorities had complied with an obligation flowing from Community law.

Bouygues Télécom contested that decision before the Court of First Instance, which, by judgment of 4 July 2008, essentially confirmed the validity of the Commission's decision. Bouygues Télécom appealed to the Court of Justice against the judgment of the Court of First Instance. Bouygues Télécom's appeal was dismissed by the Court of Justice, by judgment dated 2 April 2009.

¹⁹ The description which follows is based very substantially on the Press Release No 29/09 published by the ECJ on 2 April 2009.

Correspondence provided by respondents (and ComReg written responses to same) in the period following publication of submissions to Consultation 10/105

- a) Telefonica O2: “02's 900MHz Licence - Interim Licence post-May 2011” (*dated 22 December 2010*)



22 December 2010

Alex Chisholm, Chairperson
Commission for Communications Regulation,
Abbey Court,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

O2's 900MHz Licence – Interim Licence post-May 2011

Dear Sir

I refer to ComReg's ongoing Consultations (currently numbers 10/105, 10/71, 09/99, 09/14, and 08/57) relating to the proposed allocation of liberalised spectrum at 800, 900 and 1800 MHz (the "Consultations"). In particular we refer to ComReg's stated intention to grant interim licences to O2 and Vodafone, necessary to cover the period from expiry of their current 900 MHz licences in May 2011 until conclusion of the Consultations and availability of the relevant liberalised spectrum for use (the "interim licences"). O2 has proceeded on the basis that such an interim licence will be in place significantly in advance of the May 2011 expiry date. The purpose of this letter is to draw ComReg's attention once again to O2's concern about progress in completing the procedure for grant of these interim licences.

O2 has previously provided ComReg with detailed legal justification for why ComReg must provide for an extension, renewal, or other continuance of its current spectrum assignment. This includes considerations such as the severe disruption that will be caused to customers and competition and the irreparable harm that O2 will suffer if use of currently assigned spectrum ceases in May 2011. These issues have been acknowledged by ComReg in Consultation 10/71, where ComReg acknowledged that such licences are necessitated by its own actions in the Consultations to date, are required to safeguard existing competition from "*serious deterioration*" and to "*protect end users*" and that allowing the existing 900 MHz licences to simply expire in May 2011 without an extension has been "*discounted as a regulatory option*".

O2 has also outlined to ComReg the urgency of completing the process for grant of these licences so that they are securely in place at a minimum several months before expiry of O2's existing licence. ComReg has by its own actions created a situation where interim licences are a necessity. It is simply not acceptable, given ComReg's regulatory and legal obligations, that it is now delaying the final Decision to put these licences in place, and ensure business and service continuity for the over 3.5 million customers of O2 and Vodafone and their MVNO and roaming partners.

As O2 set out in detail in its response to Consultation 10/71, ComReg can and must proceed to a Decision on the net issue of the grant of the interim licences, and not delay until it has reached a final decision on the range of other issues on which it is currently consulting. In the first place, it is entirely feasible to structure the Decision granting the interim licences in such a way that their grant in no way impacts or pre-judges the outcome of any other elements of the Consultations. Further O2 cannot see how, in light of its progress to date, and the fact that it issued a new consultation only last

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week, ComReg can realistically conclude the Consultations in advance of May 2011. This means that holding off grant of the interim licences until conclusion of the Consultations is not an option.

O2 notes ComReg's assurance in the most recent consultation with regard to the interim licences that it intends to ensure "*implementation significantly in advance of GSM 900 MHz licence expiry in May 2011*". However there are a number of procedural steps to be gone through to achieve this, each of which takes time, and carries the potential for delay. In the circumstances and given the urgency of the matter, O2 must request that ComReg immediately respond to this letter setting out the detailed time-line by which it will implement each of the procedural steps, and ensure the licences are in place significantly in advance of May 2011. As noted above, there is no legal or regulatory basis for not doing so immediately and on a stand-alone basis.

In addition and in light of the above, O2 wishes to make it clear that it has proceeded, and continues to proceed, with its day to day business operations in Ireland on the basis that a fair and reasonable interim licence will be put in place significantly in advance of (and at a minimum several months before) expiry of its 900MHz band licence in May 2011.

Furthermore, O2 must continue to reserve its legal rights in full.

Yours sincerely,

Clíodhna O'Sullivan
Head of Legal

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- b) ComReg: Reply to Telefonica O2 letter of 22 December 2010 (*dated 23 December 2010*)



23 December 2010

Ms. Clíodhna O'Sullivan
Head of Legal
Telefónica O2 Ireland Limited
28-29 Sir John Rogersons Quay
Docklands
Dublin 2

Dear Ms. O'Sullivan

I refer to your letter dated 22 December 2010 to Mr. Alex Chisholm, Chairperson, Commission for Communications Regulation (ComReg), regarding aspects of ComReg's interim licence proposal (as set out in Consultation 10/71 and again referenced in Consultation 10/105), to which I now respond on behalf of ComReg.

I will not address each and every point made in your letter, but will set out below ComReg's response to the main issue raised. In that regard, ComReg again notes the concerns of Telefónica O2, as already rehearsed in its response to Consultation 10/71, regarding aspects of ComReg's interim licence proposal.

You will be aware that various issues and concerns were raised, not only by Telefónica O2, but also by a number of other respondents to Consultation 10/71, regarding different aspects of the interim licence proposal. ComReg gives careful consideration, and has due regard, to all responses received, and is currently considering these views - including those expressed by Telefónica O2 in its consultation response (and again in your letter) regarding the early and separate making of a decision with regard to interim licences.

Notwithstanding the fact that these responses and relevant materials and circumstances are currently being, and will continue to be, evaluated by ComReg¹ (and without prejudice to them), with the benefit of the material put forward by respondents so far, and as previously stated, ComReg is presently minded to continue developing and refining its interim licence proposal with a view to there being sufficient certainty and predictability to proceed with this proposal in advance of GSM900 licence expiry in May 2011.

¹ Including but not limited to responses received to Consultation 10/105, Consultation 10/71, and ComReg's previous consultations (Consultation 09/99, Consultation 09/14 and Consultation 08/57 to the extent that previous views put forward by stakeholders remain relevant to ComReg's joint award proposals), other relevant inputs received to-date, and any other relevant material such as any further national developments on the release of the Digital Dividend in Ireland.

Having received responses to Consultation 10/71 and, once it has fully considered same, it is ComReg's intention to publish a response to consultation and draft decision on the proposed joint award of spectrum-use rights in the relevant frequency bands. Also, as previously stated, ComReg must come to a decision on its proposal regarding interim licences, and this must be done in a procedurally appropriate manner, and cognisant of the fact that any implementation of that proposal would require, amongst other things, preparation of a Statutory Instrument for presentation to the Minister for Communications, Energy and Natural Resources for approval, prior to licence expiry.

ComReg looks forward to receiving Telefónica O2's response to Consultation 10/105 in due course.

Finally, as flagged in Consultation 10/105, and as is ComReg's usual practice, correspondence, such as your letter of 22 December 2010, is treated as a submission in response to consultation, and, subject to ComReg's guidelines on the treatment of confidential information and to any comments you wish to make in that regard, your letter will be published as a response.

Yours sincerely



Dr. Samuel Ritchie
Manager Spectrum Operations

- c) Telefonica O2: "O2's 900MHz Licence - Interim Licence post-May 2011 ("Interim Licence")" (*dated 13 January 2011*)



13 January 2011

Strictly confidential

Alex Chisholm, Chairperson
Commission for Communications Regulation,
Abbey Court,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

O2's 900MHz Licence – Interim Licence post-May 2011 (“Interim Licence”)

Dear Sir

I refer to ComReg's response to our letter of 22nd December 2010 concerning the Interim Licence, and to the ongoing contacts with ComReg on this issue.

O2 has previously outlined in detail the extreme seriousness of ensuring that Interim Licences are in place significantly in advance of May 2011, to ensure the continuity of mobile telecommunications services in Ireland for the majority of the population. In our letter of 22nd December and in ComReg's recent discussions with Stephen Shurrock and Gary Healy, O2 once again expressed its strong concern at the lack of progress in completing the procedure for grant of these Interim Licences. O2 specifically requested that ComReg urgently provide the time-line for the completion of this procedure.

Your letter acknowledges O2's point that there are procedural steps to be completed, including “preparation of a Statutory Instrument for presentation to the Minister”. However your letter does not respond at all to O2's request for a detailed time-line for completion of this procedure and grant of the Interim Licences. Further, we understand that ComReg has now taken the view that the grant of the Interim Licences may only occur once the final Decision on all of the Consultations is reached. To date you have declined O2's requests for an explanation for choosing this course of action. As outlined in our letter of 22nd December and previous submissions, this approach and the delay it entails for the Interim Licences are inappropriate, unnecessary and ultimately not workable given the imminent expiry of O2's current licence in May.

I must therefore reiterate our request that ComReg as a matter of urgency, and in any event within 1 week of the date of this letter now respond to O2's queries and provide:

1. Details of the procedural steps to grant the Interim Licence.
2. The date of grant of the Interim Licences, and ComReg's detailed time-table for completion of the procedural steps to meet this date. ComReg will be aware that this time-table needs to allow sufficient time before the May licence expiry for any legal appeal of all or any part of ComReg's decision, or any notification to the European Commission.

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3. Confirmation of whether ComReg does propose to delay grant of the Interim Licence until conclusion of the Consultations. If so, then please provide an explanation of the legal and regulatory basis for choosing this option (in particular given the other options available to it as previously outlined by O2), and its feasibility in practice.

Please note that if ComReg does not now provide a satisfactory response to these queries, we will have no option but to hand the matter over to our external legal advisors in order to take further legal action as necessary. We will also be copying this correspondence to the Minister.

As previously indicated, O2 continues to operate its business on the basis that an Interim Licence will be in place significantly in advance of May 2011. It continues to reserve its rights in full, including to take all appropriate steps to safeguard its legal rights.

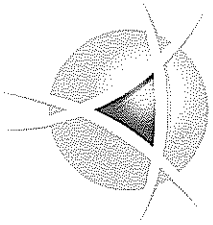
Yours faithfully

Clíodhna O'Sullivan

Head of Legal

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d) ComReg: Reply to Telefonica O2 letter of 13 January 2011 (*dated 18 January 2011*)



Commission for
Communications Regulation

18 January 2011

Ms. Clíodhna O'Sullivan
Head of Legal
Telefónica O2 Ireland Limited
28-29 Sir John Rogersons Quay
Docklands
Dublin 2

Dear Ms. O'Sullivan

I refer to your letter dated 13 January 2011 to Mr. Alex Chisholm, Chairperson, Commission for Communications Regulation (ComReg), regarding aspects of ComReg's interim licence proposal (as set out in Consultation 10/71 and again referenced in Consultation 10/105), to which I now respond on behalf of ComReg.

I also refer to your letter of 22 December, 2010, and to ComReg's response to same dated 23 December, 2010, as well as to the telephone contact on the part of your Mr. Healy with Commissioner Chisholm last Friday, regarding the same issues.

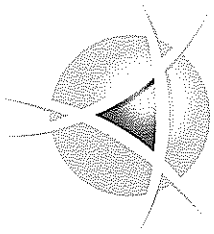
In relation to the proposal made by Mr. Healy on the telephone to Commissioner Chisholm that Telefónica O2 - possibly accompanied by representatives of Vodafone - meet with ComReg to discuss the issues common to these parties relating to interim-licensing, you might note that ComReg in no way wishes to restrict any party in making effective and full submissions, and in providing relevant information, during the course of any consultation process.

However, as Commissioner Chisholm pointed out to Mr. Healy during their telephone conversation of last Friday, unless there is some appropriate matter that cannot be put in writing that needs to be put to ComReg by way of face-to-face meeting, ComReg does not see that there is any need to accommodate a request for a meeting, nor to complicate matters by meeting with two particular parties that are interested in the subject-matter of a consultation (and not others). Accordingly, unless Telefónica O2 can advance some further reason why it is necessary or desirable that its opportunity of providing submissions and information in writing be complemented by a further opportunity of doing so orally, ComReg is minded to decline to meet with Telefónica O2 and/or Vodafone in relation to this matter.

An Coimisiún um Rialáil Cumarsáide

Commission for Communications Regulation

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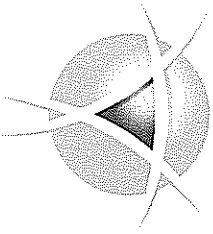
Next, ComReg again notes the concerns of Telefónica O2, as already rehearsed in its response to Consultation 10/71 and its letter of 22 December, 2010, as well as by Mr. Healy in his telephone conversation with Commissioner Chisholm last Friday, regarding aspects of ComReg's interim licence proposal.

Having itself generated the interim-licensing proposal, and having considered Telefónica O2's submissions and information supporting that proposal (including its submissions advocating early and separate decision-making with regard to it), ComReg fully understands Telefónica O2's position with regard to the interim licensing proposal put forward by ComReg in its consultation paper 10/71. ComReg appreciates Telefónica O2's concerns with regard to ensuring that the granting of such licences is decided upon, and thereafter provided for and implemented, as soon as possible, and with regard to any such licences, as might be decided upon and provided for at law, being in place in good time.

As I noted in our letter of 23 December, 2010, however, ComReg is continuing to give careful consideration to the various issues and material put forward by all respondents to Consultation 10/71, regarding different aspects of the interim licence proposal, including those expressed and put forward by Telefónica O2 in its consultation response (and again in Telefónica O2's recent letters and telephone contact) regarding the early and separate making of a decision with regard to interim licences.

Whilst you will appreciate that ComReg cannot prejudge or bilaterally rehearse with Telefónica O2 the possible decisions or responses to be included in forthcoming responses to consultation, you can therefore take it generally that ComReg is well aware of, and giving due weight to, the timing issues to which Telefónica O2 and Vodafone have referred in the context of the interim-licensing proposal itself, the decision-making with regard to it, and in the context of any implementation of that proposal.

However, as you know, ComReg is still in the course of an open consultation on these, and other, matters. The matters currently formally being considered by ComReg include whether to proceed with the interim-licensing proposal, and, indeed, if so, whether to 'carve out' that issue, and decide upon and seek to implement it separately, but complementarily to, the consultations taking place in relation to this project generally. In this regard, the earliest ComReg could indicate its proposed decisions on these matters would be in its next response-to-consultation document in this project (response to consultation 10/71), and, like all other interested parties, Telefónica O2 will therefore have to await sight of same, publication of which is envisaged to occur in early February.

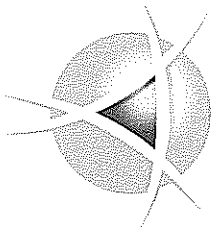


Having said that, as noted in its consultation paper 10/105, and in my letter of 23 December, 2010, with the benefit of the materials currently before it, ComReg is prepared to say that it is presently minded to continue developing and refining its interim licence proposal with a view to it being capable of implementation in advance of GSM 900 MHz licence-expiry in May of this year, and in a manner seeking to build in sufficient certainty and predictability in advance of that licence-expiry. However, as also noted in consultation paper 10/105, ComReg must still finalise its thinking on this issue, and come to a decision on it, and, insofar as that decision in fact transpires to be in favour of the interim-licensing proposal, ComReg again points out that it would further require Ministerial consent to the associated implementing regulations.

In relation to your reference to "procedural steps", Telefónica O2 will be aware of the various procedural steps required by ComReg to finalise a public consultation process, including one which would involve the grant of spectrum rights of use. Nevertheless, and by way of example, you will be aware that similar ComReg consultation processes have included:

- issue of a response to consultation and draft decision, including an appropriate period for comment on same by interested parties;
- consideration of comments received and other relevant materials;
- issue of a final decision; and
- implementation of such steps required to give effect to the final decision.

Therefore, insofar as ComReg does indeed decide in principle, further to its consideration of the materials before it, to proceed with the interim licence proposal in whatever way, it will, as in the normal course, state this formally in a response to consultation. As you are aware from your familiarity with ComReg's consultation processes generally, the relevant response-to-consultation document would then normally contain a draft decision in that regard and any ancillary materials (which, in this case, would include, for example, a draft statutory instrument - were ComReg to decide in favour of the interim licence proposal), and would invite submissions from interested parties within an appropriate timeframe, following which a final decision would issue. In the case of the proposed interim licences, the associated regulations would also require consent from the Minister for Communications Energy and Natural Resources, prior to being made by ComReg. Finally, of course, appeal or other proceedings by any party could, in principle, issue against ComReg's decisions at appropriate junctures.



I trust you will appreciate that some of these elements are outside ComReg's control. For instance, ComReg cannot predict the nature of materials received in a consultation process and, therefore, the likely time for ComReg to properly consider such materials, nor, for that matter, whether one or more affected parties may seek to appeal or otherwise take issue with a decision by ComReg.

In light of the foregoing, therefore, you will see that it is inappropriate and/or impossible for ComReg to provide some of the specific details sought in your letter, as they are premised on interim-licensing and the particular nature and timing of ComReg's decision-making thereon being a *fait accompli*, on Telefónica O2 being entitled to advance information in relation to decision-making, and on certain matters beyond ComReg's control being within ComReg's control or being fixed and/or currently ascertainable. However, I will reiterate that ComReg is fully cognisant of the issues at hand, and is committed to progressing the interim-licensing question in a manner that seeks to build in sufficient certainty and predictability in advance of GSM 900 MHz licence-expiry in May of this year.

Penultimately, as flagged in Consultation 10/105, and as is ComReg's usual practice, correspondence, such as your letter of 13 January 2011, is treated as a submission in response to consultation, and, subject to ComReg's guidelines on the treatment of confidential information and to any comments you wish to make in that regard, your letter will be published as a response. Accordingly, whilst your letter under reply is headed, "strictly confidential", I would be grateful if you would provide a non-confidential version of your letter of 13 January at your earliest convenience, in order that it might be published as a consultation response. In addition, please note that, in accordance with ComReg's previous practice of publishing relevant correspondence in this process, ComReg will be publishing this letter and its letter of 23 December in due course.

Finally, ComReg looks forward to receiving Telefónica O2's response to Consultation 10/105 in due course.

Yours sincerely

A handwritten signature in cursive script that reads "Kevin Kennedy".

Kevin Kennedy
Spectrum Development Manager

- e) Telefonica O2: "O2's 900MHz Licence - Interim Licence post-May 2011 ("Interim Licence")" (*dated 25 January 2011*)



25 January 2011

~~Strictly confidential~~

Alex Chisholm, Chairperson
Commission for Communications Regulation,
Abbey Court,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

O2's 900MHz Licence – Interim Licence post-May 2011 (“Interim Licence”)

Dear Sir

I refer to ComReg's response of 18th January 2011 concerning the Interim Licence, signed by Kevin Kennedy Spectrum Development Manager, and to the ongoing correspondence and contacts with ComReg on this issue. We welcome ComReg's acknowledgement of the seriousness and urgency of this matter. However, ComReg is continuing to refuse O2's requests that it indicate a final date for grant of an Interim Licence and a procedural time-table that demonstrates how ComReg will achieve the grant of this licence significantly in advance of May licence expiry.

While ComReg has consulted on whether to grant a licence, the time-table and date for such grant are administrative points, they are not matters that are being consulted upon and are within ComReg's control. We cannot therefore understand why ComReg is continuing to refuse to share this information or why in your latest letter you are “minded to decline” to meet to discuss this issue. O2 and Vodafone are the only two parties directly affected by this decision and we do not see that it would in any way “complicate matters” for ComReg to meet the parties, particularly as the current exchange of letters between O2 and ComReg is not providing clarity.

In addition however, we note your statement that you plan to publish your response to Consultation 10/71 in early February. As this is the Consultation in which the Interim Licence was proposed, we assume that it will contain a decision on an Interim Licence.

Further, having already consulted on the question of whether to grant an Interim Licence, we understand that there is no requirement to consult again on this net question and that what will be published in early February will be a final (appealable) decision on this specific issue of grant, leaving if necessary to a subsequent decision, any specific details of licence terms that have not previously been consulted upon.

We would note that any other approach, in particular involving further consultation on the specific issue of grant using ComReg's normal time-frames would not appear to leave sufficient time for an Interim Licence to be put in place before May 2011, bearing in mind the procedural steps to be gone through following publication of ComReg's decision and the period prescribed for appeal by statute. We would also refer to ComReg's existing powers to grant emergency licences without consultation.

A *Telefonica* company



Based on the above, O2 will await publication of this response to Consultation 10/71 before taking the further steps referred to in our last letter. However, in light of the considerable urgency of matter and the very short time available to O2 before May 2011, we should advise you that in the event that this response is not published by the end of next week (the first week in February), we will have no option but to escalate the matter as previously stated.

Finally and as previously indicated, O2 continues to operate its business on the basis that an Interim Licence will be in place significantly in advance of May 2011. It continues to reserve its rights in full, including to take all appropriate steps to safeguard its legal rights.

Yours faithfully

Clíodhna O'Sullivan

Head of Legal

A *Telefonica* company

- f) ComReg: Reply to Telefonica O2 letter of 25 January 2011 (*dated 2 February 2011*)



Commission for
Communications Regulation

02 February 2011

Ms. Clíodhna O'Sullivan
Head of Legal
Telefónica O2 Ireland Limited
28-29 Sir John Rogersons Quay
Docklands
Dublin 2

Dear Ms. O'Sullivan

I refer to your further letter dated 25 January, 2011, and to previous correspondence in relation to the above matter.

Notwithstanding the contents of your further letter, I find it difficult to appropriately provide significantly greater information or clarity than was provided by Kevin Kennedy in his letter to you, dated 18 January, 2011.

In large measure, the issues being rehearsed are consultation issues that ought to be – and have been - raised and responded to in a structured fashion in consultation papers, submissions and responses.

Whilst ComReg will, of course, engage with any interested party in whatever manner is appropriate in particular circumstances, you will appreciate that, particularly in circumstances where ComReg has a significant amount of work to undertake in this process, and has obligations to be even-handed and transparent in its dealings with all parties, any strictly unnecessary parallel or overlapping communications are undesirable.

In this regard, ComReg does note, however, that you consider that the current exchange of letters between it and O2 “is not providing clarity.” Whilst ComReg would never entirely reject the notion that a meeting might be desirable, ComReg nevertheless hopes that previous correspondence, this letter and ComReg’s forthcoming response to its consultation paper 10/71 will serve to satisfy O2’s reasonable information needs, provide the appropriate level of clarity, and obviate any need for a meeting.

As Mr. Kennedy pointed out, and as your letter of 25 January acknowledges in the third and fourth paragraphs, ComReg has yet to decide on the interim-licensing issue. ComReg’s approach to that issue, or any other issue –

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including any associated “administrative points” (as you characterise them) relating to timetabling and next steps - will be disclosed to all interested parties when ComReg responds to its consultation paper 10/71 in the early part of February. Therefore, ComReg’s forthcoming paper will include any available information considered necessary or desirable concerning the next steps and indicative timeframes. In this regard, ComReg is cognisant of O2 and other parties’ natural desire for information concerning the unfolding process generally. Matters will thereafter take their course accordingly.

Mr. Kennedy’s letter also demonstrates why it is not possible or appropriate to provide any further information, in advance of ComReg issuing its response-to-consultation paper, which is premised on the grant of an interim licence necessarily taking place.

Next, notwithstanding O2’s understanding with regard to what are the required procedures (as set out in the fourth paragraph of your letter), or its view (as set out in the fifth paragraph) as to what amount of time is necessary in particular circumstances, ComReg’s intention is to follow a procedure of the type described by Mr. Kennedy on the third page of his letter to you dated 18 January, including, within the ancillary materials to which he refers for example, a draft Regulatory Impact Assessment.

Therefore, as you mention in the penultimate paragraph of your letter, and absent any compelling procedural consideration to the contrary, O2 will have to await publication of ComReg’s response to its consultation paper 10/71, and calibrate its response accordingly. In that regard, whilst ComReg is not in a position to confirm that publication will take place on the date O2 purports to be able to require, it nevertheless again confirms that it expects to publish its response shortly. In this regard, however, in addition to its continuing consideration of the materials associated with its paper 10/71, as you know, ComReg has just received (on Friday, 28 January) responses from interested parties to its paper 10/105, parts of which are relevant for present purposes.

Penultimately, I note your continued reference to O2 operating its business on the basis that an interim licence will be in place significantly in advance of May, 2011. However, as you will appreciate, and for the avoidance of doubt, the decision by O2 to adopt this course of action cannot flow from ComReg’s publications and correspondence on this matter to date, as no decision has yet been made with regard to interim licences, and, accordingly, no such licences can be definitively assumed to be in place at any time, nor can ComReg guarantee that such licences, even if decided upon, will necessarily be in place at any time.

Finally, as is ComReg’s usual practice, your letter of the 25 January, is considered as a submission in response to consultation, and, subject to ComReg’s guidelines on the treatment of confidential information and to any

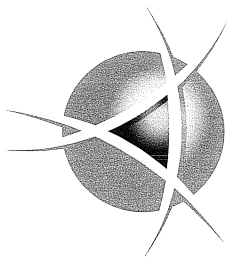
comments you wish to make in that regard, your letter will be published as a response. Accordingly, whilst your letter under reply is headed, "strictly confidential", I would be grateful if you would provide a non-confidential version of your letter of 25 January by the close of business on the 4 February 2011, in order that it might be published as a consultation response.

Yours sincerely

A handwritten signature in black ink, appearing to read 'S. Ritchie', written in a cursive style.

Dr. Samuel Ritchie
Manager Spectrum Operations

- g) ComReg to H3GI: “Hutchison 3G Ireland's submission to ComReg consultation 10/105” (*dated 26 January 2011*)



26 January 2011

Mr. Mark Hughes
Head of Regulatory
Hutchison 3G Ireland
1 Clarendon Row
Dublin 2

Ref: Hutchison 3G Ireland's submission to ComReg consultation 10/105

Dear Mark,

On behalf of ComReg, I acknowledge receipt of H3GI's submissions in response to Consultation Paper 10/105, as contained in your letter addressed to Sinead Devey, dated 21 January, 2011.

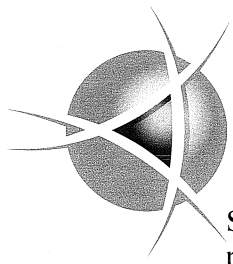
ComReg notes from Annex 1 of your letter that H3GI's responses to the consultation questions contained in its paper 10/105 are limited to certain questions only, and do not include responses to a number of other questions.

In this regard, ComReg wishes to remind H3GI that the deadline for responses to its paper numbered 10/105 was extended from the original date of 21 January, 2011, to this Friday, 28 January, 2011. That extension was notified to interested parties by means of ComReg's Information Notice (10/111), dated 23 December, 2010, which is available online at <http://www.comreg.ie/fileupload/publications/ComReg10111.pdf>.

Therefore, insofar as H3GI would like any views, submissions, comments or information in relation to any of the unanswered questions to be taken into account by ComReg, it would have to submit these on or before this Friday at 5.00 p.m.

Next, ComReg acknowledges H3GI's submissions as contained in the main body of your letter, and again notes H3GI's views concerning the alternative proposal put forward by it in response to ComReg's paper numbered 10/71. ComReg further notes H3GI's belief that other mobile network operators' ("MNOs") views ought to be canvassed with regard to whether H3GI's alternative proposal put forward in response to that paper could form the basis for a solution, as well as noting H3GI's belief that, based on the other MNOs' stated public positions, they would, in fact, support such a solution.

In this regard, ComReg would first like to state that it is currently considering H3GI's alternative proposal as part of its deliberations in any event.



Commission for
Communications Regulation

Secondly, ComReg would, of course, welcome any and all views in relation to that proposal – and not merely those of other MNOs. In that regard, it notes that H3GI's proposal is available to other interested parties and to the public generally, having been published by ComReg on 7 January 2011.

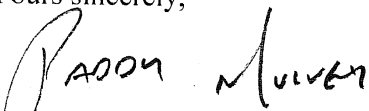
However, ComReg further acknowledges that, technically, it is not currently seeking further responses to its consultation paper 10/71, and, accordingly, there is no current, formal mechanism available to third parties to comment on H3GI's alternative proposal.

Nevertheless, ComReg will, in due course, publish a response to consultation paper 10/71, which will include some final draft proposals and invite final submissions and information from interested parties. Included in that response-to-consultation will be an analysis of, and commentary on, H3GI's alternative proposal. ComReg's forthcoming response-to-consultation document will afford interested parties an opportunity, within a reasonable period, to provide submissions and other material in response to the document generally, including H3GI's alternative proposal. Clearly, therefore, insofar as any interested parties are in favour of H3GI's alternative proposal, they will provide submissions and other material to that effect in response to ComReg's response-to-consultation document. ComReg will then consider and evaluate all of the material before it - including any material tending to favour H3GI's alternative proposal - prior to making a final decision.

In these circumstances, whilst ComReg in no way wishes to restrict any party in making effective and full submissions, or in providing relevant information, during the course of a consultation process, it does not appear necessary in this instance to hold bilateral meetings with interested parties (let alone a sub-set of interested parties) as suggested in your letter), with regard to the merits and demerits of H3GI's alternative proposal. In principle, and in practice, it would appear that all relevant submissions and information can be adduced by way of written material provided to ComReg through the normal mechanisms.

In line with ComReg's procedures, correspondence, such as your letter of 21 January, 2011, and its Annex 1, are treated as submissions in response to consultation, and, subject to ComReg's guidelines on the treatment of confidential information and to any comments you wish to make in that regard, your letter and Annex will be published as responses. Accordingly, I would be grateful if you could let me know if there is anything in your letter or in its Annex that H3GI considers is confidential, and ought not to be published, in order that these materials (or, as the case may be, appropriate versions of them) might in due course be published as consultation responses.

Yours sincerely,

PP 

Samuel Ritchie
Spectrum Operations Manager

- h) Hutchison 3G Ireland: Reply to ComReg letter of 26 January 2011 (*dated 27 January 2011*)



Mr Samuel Ritchie, Spectrum Operations Manager, Framework Division
Commission for Communications Regulation
Irish Life Centre
Lower Abbey Street
Dublin 1
BY REGISTERED POST AND EMAIL: samuel.ritchie@comreg.ie

27 January 2011

Dear Samuel

COMREG DOC. NO. 10/105

I refer to your letter of 26 January 2011 and in particular the following statements:

“Nevertheless, ComReg will, in due course, publish a response to consultation paper 10/71, which will include some final draft proposals and invite final submissions and information from interested parties. Included in that response-to-consultation will be an analysis of, and commentary on, H3GI’s alternative proposal. ComReg’s forthcoming response-to-consultation document will afford interested parties an opportunity, within a reasonable period, to provide submissions and other material in response to the document generally, including H3GI’s alternative proposal. Clearly, therefore, insofar as any interested parties are in favour of H3GI’s alternative proposal, they will provide submissions and other material to that effect in response to ComReg’s response-to-consultation document. ComReg will then consider and evaluate all of the material before it – including any material tending to favour H3GI’s alternative proposal – prior to making a final decision.”

In these circumstances, whilst ComReg in no way wishes to restrict any party in making effective and full submissions, or in providing relevant information, during the course of a consultation process, it does not appear necessary in this instance to hold bilateral meetings with interested parties (let alone a sub-set of interested parties) as suggested in your letter), with regard to the merits and demerits of H3GI’s alternative proposal. In principle, and in practice, it would appear that all relevant submissions and information can be adduced by way of written material provided to ComReg through the normal mechanisms.”

At page 52 of ComReg Doc. No. 10/105, “Inclusion of the 1800 MHz Band into the Proposed joint award of 800 MHz and 900 MHz Spectrum”, ComReg states:

“Following receipt and consideration of comments received to this consultation, it is ComReg’s intention to publish a response to consultation and draft decision on the joint award. ComReg must also come to a decision on its proposed interim licence proposal, the implementation of which would require preparation of a Statutory Instrument for presentation to the Minister for Communications Energy and Natural Resources for approval, prior to licence expiry.”

Directors
Robert Finnegan
Canning Fok, British
Susan Chow, British
Frank Sixt, Canadian
Edith Shih, British
Kevin Russell, British

1

Hutchison 3G Ireland Limited
Registered Office:
3rd Floor
One Clarendon Row
Dublin 2
Ireland
Registered Number:
316982

A Hutchison Whampoa company

Place of Registration: Republic of Ireland



As the alternative proposal of Hutchison 3G Ireland Limited contained in its response to ComReg Doc. No. 10/71 relates to both ComReg's "interim licence proposal" and the "joint award", please confirm that ComReg will not make any decision in respect of either of these matters pending its "response to consultation paper 10/71" affording "interested parties an opportunity, within a reasonable period, to provide submissions and other material in response to the document generally, including H3GI's alternative proposal".

Yours sincerely


MARK HUGHES
Head of Regulatory

Directors
Robert Finnegan
Canning Fok, British
Susan Chow, British
Frank Sixt, Canadian
Edith Shih, British
Kevin Russell, British

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316982
Place of Registration: Republic of Ireland

- i) ComReg to H3GI: “ComReg Doc. No. 10/105” (*dated 2 February 2011*)



Commission for
Communications Regulation

02 February 2011

Mr. Mark Hughes
Head of Regulatory
Hutchison 3G Ireland
1 Clarendon Row
Dublin 2

Ref: ComReg Doc. No. 10/105

Dear Mark,

I refer to my letter dated 26 January, 2011, and to your reply dated 27 January 2011.

On behalf of ComReg, I confirm that you are correct in understanding that ComReg's intention is not to make any decision in respect of the interim licence proposal contained in its consultation paper 10/71, or the proposed joint award of spectrum-use rights in various frequency bands, until such time as it has published a response in respect of that proposal, and has afforded interested parties an opportunity, within a reasonable period thereafter, to provide submissions and other material in reply, including submissions and material regarding H3GI's alternative proposal.

Finally, in line with ComReg's procedures, your letter of 27 January, 2011, is considered to be a submission in response to consultation, and, subject to ComReg's guidelines on the treatment of confidential information and to any comments you wish to make in that regard, your letter will be published as a response. Accordingly, I would be grateful if you could let me know if there is anything in your letter that H3GI considers is confidential, and ought not to be published, in order that this material (or, as the case may be, an appropriate version of it) might in due course be published as a consultation response.

Yours sincerely,

Dr. Samuel Ritchie
Spectrum Operations Manager

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