Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Award of the 2.3 and 3.4 GHz spectrum bands

To (Ofcom contact): John Glover

Name of respondent: Scottish Government

Representing (self or organisation/s): Organisation

Address (if not received by email):

CONFIDENTIALITY

What do you want Ofcom to keep confidential?

Nothing	X	Name/contact details/job title	
Whole response		Organisation	
Part of the response		If there is no separate annex, which parts?	

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Name Signed (if hard copy)

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31 January 2017

Dear Mr Glover

Award of the 2.3 and 3.4 GHz spectrum bands

I have pleasure in enclosing the Scottish Government's response to Ofcom's consultation: Award of the 2.3 and 3.4 GHz spectrum bands. This response was written jointly with the Scottish Futures Trust.

Our response is reflective of the key role we believe that spectrum has to play in our vision of world class digital connectivity in Scotland, and we are committed to working with Ofcom, the UK Government, industry and other partners in achieving this vision.

We are happy to have a further dialogue with Ofcom to discuss any aspect of our response or spectrum issues more generally and I would invite you to contact Harry Emambocus (harry.emambocus@gov.scot) in the Scottish Government's Digital Directorate in the first instance.

Yours truly
Fergus

FERGUS EWING

OFCOM CONSULTATION: AWARD OF THE 2.3 AND 3.4 GHz SPECTRUM BANDS

SCOTTISH GOVERNMENT AND SCOTTISH FUTURES TRUST RESPONSE

Introduction

This is a joint response from the Scottish Government (SG) and Scottish Futures Trust (SFT). SG and SFT are working in collaboration to develop an implementation strategy to deliver Scotland's world class digital vision, as set out in SG's Scotland's Digital Future: Infrastructure Action Plan[1]. One aspect of this work is to assess the regulatory levers that can stimulate efficient and effective private and public sector investment.

For world class digital connectivity, we believe that it is imperative that both consumers and enterprises in Scotland have access to digital services and mobile connectivity to enable connection and content. This requires both infrastructure and devices to achieve:

- seamless delivery across fixed and wireless platforms;
- a quality of service and experience commensurate with other leading and modern digital economies; and,
- investment into Scotland's digital infrastructure that will guarantee the country's future competitiveness, as well as its ability to provide enhanced public services and opportunity to its citizens.

To achieve this, we have identified six key "pillars" that will underpin Scotland's digital environment being ready for a new generation of connectivity: 5G. 5G connectivity will push Scotland's existing infrastructure beyond its current limits. This necessitates an immediate need for a more future proofed infrastructure strategy, to pave the way for delivery of 5G services across a complex overlay of multiple technologies in order to provide a seamless mobile user experience. The International Telecommunications Union has already defined that a 5G-ready network will have to provide data speeds of up to 20 Gbps. If Scotland is to be ready for this, it is imperative that the right conditions are set now to enable effective delivery of the required underlying infrastructure.

Spectrum is one of these pillars, and therefore its management and availability will be key to achieving our future vision. We believe that availability of spectrum will have a significant impact upon mobile telecommunications and mobile data usage in Scotland – and thus the 2.3 and 3.4 GHz spectrum auction has an important role. The introduction of these and any new spectrum holdings must be considered in relation to the future requirements of Scotland's (and the UK's) telecommunications ecosystem and how it enables and supports the quality of experience for users.

Spectrum – General Points

Ensuring that adequate spectrum is available for those that need it (whether public or private entities), can enable economic, social and fiscal benefits to be realised. Spectrum auctions must not be solely considered on the basis of maximising immediate or short-term financial receipts, but also in terms of the wider economic and social benefits they could produce.

[1] http://www.scotland.gov.uk/Publications/2012/01/1487/0

This approach, in turn, could create greater fiscal benefits for the UK in the long term, through enabling sustainable economic growth[2].

This is a vital consideration to ensure delivery of mobile services to areas of Scotland (and the UK more widely) where there is likely to be limited or no investment to deliver 4G connectivity and the future evolution to 5G.

We recognise that in recent years, Ofcom's approach to spectrum auctions has taken consideration of the social benefits. We also acknowledge that in the past six months, Ofcom has also consulted on the geographical sharing of spectrum. We view these as important steps in the right direction.

To complement this, we urge Ofcom to consider the full range of regulatory conditions at its disposal which could be attached to spectrum auctions. Coverage obligations are already well established, but an alternative may be in the form of rural tariffs to complement infrastructure and coverage obligations. For example, mobile network operators (MNOs) could be required to provide rural and remote area tariffs which would see any mobile broadband products underpinned by appropriate pricing and access packages. This may allow mobile broadband to become an alternative to fixed services.

We also ask Ofcom to consider attaching geographic obligations to infrastructure investment arising from use of the spectrum: these could include an "outside-in" approach to deployment, deployment on key transport routes (road, rail and sea), and potentially differing application of obligations in the different UK nations, dependent on individual circumstances and that nation's connectivity requirements.

2.3 & 3.4 GHz Auction

Coverage Obligations

We note that Ofcom does not propose to implement a coverage obligation on the 2.3 and 3.4 GHz auction, believing these bands more likely to benefit MNOs' capacity than widening coverage. Whilst 2.3 GHz spectrum may not directly deliver wider coverage *per se*, it will complement MNOs' current spectrum holdings: the consultation document setting out the 2.3 Ghz band as being immediately useable by MNOs to improve their 4G services. Given the geographic constraints and challenges for digital infrastructure in Scotland, we urge Ofcom to assess MNOs' spectrum holdings as a whole as a result of this auction and explore what additional coverage obligations for 4G coverage – going beyond current 4G coverage obligations – could be implemented.

This is particularly important given that this spectrum could be used to deliver both mobile and broadband services – and thus potentially have a role as part of delivery of the universal service obligation (USO) on broadband which is likely to require a mix of technologies. On this last point, we ask if Ofcom has considered how this spectrum may relate to the USO: how it may affect the USO's design and cost effectiveness of its delivery, and how the design of the 2.3 & 3.4 GHz and other future spectrum auctions could be constructed to align with USO requirements.

Spectrum Caps

In this auction, we note that Ofcom intends to apply a spectrum cap to facilitate fair competition across the MNOs, and we welcome this approach. We are aware that this issue

[2] http://www.scottishfuturestrust.org.uk/files/publications/Impact_of_digitalisation_in_Scotland.pdf

is currently very topical, with calls on Ofcom to ensure that this auction, and future spectrum auctions, are designed to result in balanced holdings of spectrum by all MNOs moving forward. This is based on concerns on adverse effects on competition as a result of imbalances of spectrum holdings, and we note that the consultation document considers a number of scenarios and capping options. We encourage Ofcom to go even further and assess how competition could be adversely affected on a regional basis as a result of this auction and consider what capping approach – or other regulatory remedies – may be appropriate to implement.

A related point is that we are of the view that all useable spectrum held by MNOs should always be used to deliver improved connectivity. Ofcom should consider that there are likely to be differences in the use of spectrum across the country: certainly, we envisage probable demand by the MNOs to secure and use the 2.3 Ghz spectrum in densely populated areas and areas where there is a commercial driver.

Where spectrum is ultimately unused, we believe that Ofcom has a role to facilitate alternative uses of the spectrum. And in other circumstances, it may be appropriate for Ofcom to go even further and take steps to ensure that MNOs cannot "bank" spectrum, potentially to prevent other MNOs using it. We recognise that the 2.3 GHz spectrum is immediately useable by the MNOs, whilst 3.4 GHz is more likely to benefit the evolution to 5G in the future. Thus for 2.3 Ghz, we urge Ofcom to consider the implementation of a "use or share it" or "use it or lose it" approach – on a geographic basis. This could allow future use of unused spectrum by alternative users who may wish to offer localised communications services in specific geographic areas. (We are aware of one such telecommunications provider which has indicated that it would invest to offer mobile services in parts of Scotland if spectrum was made available.) For 3.4 GHz, we urge Ofcom to closely monitor usage in the future and undertake similar remedies if appropriate.

Future Proofing

Finally, we urge Ofcom to consider the use of 2.3 & 3.4 GHz spectrum in the longer-term context and take appropriate steps in this auction to future proof the UK's digital capability. This is relevant, given that the likely future usage of 3.4 GHz for 5G has already been established. We urge Ofcom to consider likely future technical requirements of this spectrum in terms of today's auction packaging of these bands (i.e. what size of bands are made available) – for example the requirement for larger blocks of contiguous spectrum – and to ensure alignment with similar provisions in the forthcoming auction of 700 MHz spectrum.

SCOTTISH GOVERNMENT
SCOTTISH FUTURES TRUST
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