

Cabinet Secretary for the Rural Economy and Connectivity
Fergus Ewing MSP



F/T:
E:

Mr Jack Hindley
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By email: mobilecoverageconsultation2018@ofcom.org.uk

2 May 2018

Dear Mr Hindley

Improving mobile coverage – Proposals for coverage obligations in the award of the 700 MHz spectrum band

I have pleasure in enclosing a joint response from the Scottish Government and Scottish Futures Trust to Ofcom's consultation: Improving mobile coverage – Proposals for coverage obligations in the award of the 700 MHz spectrum band.

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 and reducing the digital divide. We urge Ofcom to ensure that the valuable regulatory levers that are afforded through this award are used to drive ambitious premises and geographic coverage targets – and ones which are equitable across the UK – which is not reflected in Ofcom's current proposals

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

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Introduction

1. This is a joint response by the Scottish Government (SG) and Scottish Futures Trust (SFT). SG and SFT are working in partnership to develop an ambitious strategy and policy approach geared towards realising SG's digital connectivity vision as set out in our 2017 Digital Strategy: *Realising Scotland's Full Potential in a Digital World – A Digital Strategy for Scotland*¹. One area of our focus is assessing the regulatory levers that can stimulate efficient and effective private and public sector investment: ultimately our aim is to set the optimum conditions to make Scotland the most attractive part of the UK in which to invest in telecoms. Our interest in spectrum which will underpin the development and deployment of 5G is specifically mentioned in the abovementioned strategy document.

Question 1: Do you agree with our proposal to include two geographic coverage obligations and a premises obligation in the 700MHz award?

2. Whilst we welcome the inclusion of both geographic and premises coverage obligations, we believe that Ofcom needs to do more to demonstrate – undertaking (and sharing) further analysis as necessary – that the proposed coverage levels will optimise and maximise the impact of this important spectrum award in delivering future-proofed telecoms infrastructure in hard-to-reach areas where industry investment is unlikely in Scotland and the UK as a whole.
3. Taking a step back, we believe that government policy, regulation and industry all have a role to play in delivering improved mobile connectivity – this is a fundamental tenet of our Mobile Action Plan², published in 2016 and again reflected in the launch of the Scottish 4G Infill programme³ in 2017. Given the significance of 700 MHz spectrum on MNOs' future ability to deliver 4G and 5G services, we believe that in this auction, Ofcom has an prime opportunity to set stringent licence conditions which have the potential to have a transformational impact on future mobile coverage in the UK.
4. These obligations also need to ensure that: new infrastructure arising is future-proofed and underpinned by the deployment of fibre as far as possible; that the services expected are delivered; and that there is sufficient capacity in the 'system' to make sure the end-user experience meets consumers' expectations. We ask Ofcom to confirm what its expectations are around the basis of the infrastructure to be delivered, and this includes the access arrangements (by other operators) and design: we would recommend mandating that mast infrastructure should be open access and built as multi-operator capable from the outset.
5. It is also vital that Ofcom considers how the auction process and spectrum award will enable the rural rollout of 5G in the future and the appropriate obligations that should be included in this regard.
6. At this stage, we do not feel that Ofcom's proposals are sufficiently ambitious for Scotland, and this is described in further detail in this response. Ultimately, it needs to be recognised for Scotland that, without the public sector and Ofcom influencing investment through policy, regulation and potential funding support, that a significant portion of the

¹ <http://www.gov.scot/Publications/2017/03/7843>

² <https://beta.gov.scot/publications/mobile-action-plan/>

³ <https://beta.gov.scot/news/improving-mobile-coverage/>

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country will simply not see investment. This will have material economic and social impacts, and this is an outcome which is unacceptable to the Scottish Government.

Question 2: Do you agree with our proposed target for geographic coverage?

7. The key outcome required for both geographic and in-premises coverage obligations is to ensure that the coverage level which is ultimately set is ambitious, proportionate and realistic – to deliver the maximum possible impact on coverage in Scotland and in the UK.
8. At this stage we are unable to provide a view on the appropriate national target which should be set. In order to help inform our judgement of whether Ofcom's proposed geographic and in-premises targets are appropriate, we ask that Ofcom publishes (or shares with the Scottish Government and Scottish Futures Trust on a confidential basis) the mapping and economic analysis that it has undertaken around premises and geography, and on the likely costs that will be incurred by a MNO in fulfilling the proposed coverage target, which supports why it believes the 92% geographic target is an appropriate level for the UK, and that 76% is an appropriate level for Scotland.
9. Without sight of this evidence, it is difficult for SG and SFT to understand the appropriateness of proposed targets and the ability of bidders to meet these obligations. We would also welcome an insight into Ofcom's discussions with industry and their potential interest in this matter. Ultimately, to support this, we would be keen to collaborate with Ofcom regarding the sharing of evidence. Over the last few years, SG and SFT have built up a significant level of knowledge on potential costs and implications of mobile infrastructure delivery, and would be happy to share these with Ofcom as we believe they could help shape framing appropriate coverage obligations.
10. The basis of the competition is also a fundamental issue in relation to the geographic coverage obligations. For those citizens living in complete notspots, the ability to access the services of merely one provider would be beneficial and therefore Ofcom should consider how it would package the spectrum associated with the two geographic coverage lots to ensure that different regions of the country would be covered (or minimise cross over) by the obligations.
11. On the basis of the current proposed approach, we believe that there is a risk that the coverage arising from the two geographic spectrum lots could ultimately be heavily duplicated between the two bidders who acquire these licences. However with careful planning, we believe that there exists an opportunity for Ofcom to ensure that the expected coverage output of these lots could be shaped to avoid significant duplication and thus potentially reach a higher coverage percentage.
12. We encourage Ofcom to recognise and mitigate against a number of possible scenarios which have the potential to have the opposite of the intended outcome. Depending on which organisation bids for a particular lot, given the nature of the MNOs' two infrastructure delivery organisations, there is potential for the industry to drive significant value from site sharing, which would have no flow back to Ofcom or through the auction process. Indeed, this could even drive bidding behaviours: potentially 'over-bidding' to ensure that a coverage obligation is won, but with the expectation that the value bid would not translate into actual expenditure to expand coverage. This would be a detrimental outcome. This could also occur if a single bidder won both the premises and a geographic lot. The full value in terms of coverage from the lotting strategy must ultimately be achieved and Ofcom is therefore encouraged to consider that where there is

potential crossover, or where the full value of a bid is not delivered, this should be carried over into delivering other infrastructure pushing coverage further. Furthermore, this should not be simply on the basis of ease for the licence holder, but should again translate as wider Scottish and UK coverage.

13. Another potential scenario is as a result of effectively “losing” the intended benefit of having two geographic lots due to bidding behaviour (potentially as described in paragraph 12). There is a risk that one of the geographic lots attracts no bidders if there is concern that its obligations cannot be fulfilled. To mitigate against this, Ofcom could consider how a sliding scale of geographic coverage, whereby MNOs bid their “best effort”, is built into the bid mechanism. In terms of coverage uplift, this could prove to be better than nothing, assuming it extends coverage and doesn’t encourage the behaviours outlined above.
14. We urge Ofcom to ensure that coverage obligations are based solely upon notspots. One option would be to split the two geographic lots with one working from an inside-out basis and one from an outside-in. The latter would produce lower levels of infrastructure but would also see coverage in areas where it would be unlikely to get it.
15. Both geographic and premises coverage obligations should also consider an independent testing requirement to ensure that a specified level of end-user experience is delivered. In the event it isn’t, it should be rectified at the licence holder’s cost. The cost of such independent testing (with a scope to be provided by Ofcom and a duty of care to be likewise to be provided to Ofcom by any appointment) could be included within the financial envelope of the bids.
16. We encourage Ofcom to consider appropriate levels and types of financial penalties that could be levied for non-compliance of the obligation, including if proposed infrastructure is not delivered and/or does not cost the expected sum. Ofcom should consider various remedies (such as clawback mechanisms) along with what avenues are available to ensure that any such monies raised are invested to deliver additional coverage benefits as an alternative to going to the Treasury. This could include clawing back sums under ‘piggybacking’ arrangements or duplication through sharing in coverage areas.

Q3: Do you agree with our proposed target for in premises coverage?

17. Please refer to our comments at paragraphs 8 and 9 which also apply here. We similarly seek sight of the mapping and other analysis which underpins Ofcom’s rationale as to why it believes that 60% of the identified premises is an appropriate target for in-premises coverage.
18. We would welcome further detail of how Ofcom proposes to identify and document with accuracy the approximately 200,000 premises that it estimates will be without service at the time of the award. Furthermore, we ask Ofcom to consider how it could ensure that the premises which will receive coverage as a result of this obligation are known from an early stage. Ofcom should consider mandating provision of services to particular locations and/or make it a requirement on the license holder to declare where they will – and will not – invest. Furthermore, complete transparency is required around this. This would, in turn, enable national governments and other public bodies to more accurately understand the scope and costs of what publicly funded interventions may later be required to provide infill.

19. Ofcom has detailed how it would approach obligations based upon coverage of premises, road and rail, however, from an economic impact viewpoint, we also encourage Ofcom to consider how transient population movements, tourism and leisure uses also require/impact upon coverage. Indeed, we recommend that Ofcom conducts a mapping exercise overlaying existing notspots, backhaul location, power routes, movement heat maps and the timing behind these to understand where the biggest impacts from the coverage obligations could be located. We believe that such analysis is critical to ensuring there is a good understanding of where the connectivity problems are, and could be used to ensure that an overall approach can be derived which maximises coverage in the right locations effectively.

Question 4: Do you agree with our proposed approach to targets for the Nations?

20. With regards to the in-premises coverage obligation, we are supportive that an equitable level has been proposed across all four nations.

21. With regards to the geographic coverage level of 76% proposed for Scotland, compared to 83% for Wales and 92% for England and 92% for Northern Ireland, we do not accept that this is a fair proposal. Whilst we appreciate that the resultant coverage uplift for Scotland may be the highest amongst the four nations, the fact remains that the ultimate outcome essentially represents a detrimental position for Scotland and a basis of equality is needed. As above, we ask for sight of the analysis that Ofcom has undertaken which provides the rationale and justification as to why it believes that the target of 76% for Scotland is appropriate.

22. Notwithstanding, the Scottish Government is firmly of the view that the national target of 92% must apply in Scotland too.

23. We are concerned that there could be adverse economic impacts to Scotland which may arise from Ofcom's proposed inequitable approach, particularly given the consultation document has highlighted that notspots include both households and businesses. Many of these may be important industries in Scotland – including agriculture, aquaculture and renewables. We therefore seek reassurance that Ofcom has undertaken relevant analysis which would refute our view.

24. The consultation document states that Ofcom believes that to also achieve 92% geographic coverage in Scotland would require several times the number of new sites expects to be delivered in the fulfilment of the UK coverage obligations, as currently proposed, in their entirety. This clearly is reflective of the challenging geography and low population distribution in rural Scotland, again acknowledged in the consultation document. It is for this very reason that we believe that all levers that Ofcom can use through this spectrum auction should be used as way of achieving the desired level of investment in Scotland. Furthermore, we believe that alternative approaches – described in our response to Question 7 below – could also help deliver this outcome.

Q5: Do you agree with our proposal that the coverage obligations should be met within 3 years of the 700 MHz award?

25. We believe that quicker delivery is required as the overall timescale is simply a long time for citizens and communities located in notspots to wait for the availability of mobile services. There are various methods which could be employed to accelerate the process and mitigate the risk that rollout will be heavily weighted towards the end of the three-year period.

26. We encourage Ofcom to consider staged targets which are set at particular levels across the three-year period.
27. We suggest that Ofcom could help establish stakeholder engagement and support to assist rollout, for example liaison with landowners and planning authorities: methods such as this have been employed in past government initiatives.
28. We also encourage Ofcom to look for ways to accelerate the auction process ahead of clearance – this could effectively allow MNOs to start the planning and process elements sooner.

Question 6: Do you agree that sharing information on the location of new sites in rural areas in advance of submitting a planning notice would be appropriate?

29. We agree that sharing information pertaining to future activity would probably be useful, however, this only goes so far, and in any event, some degree of intelligence probably would already exist within the MNOs' infrastructure delivery arms. We therefore believe that Ofcom must go even further than proposed and consider making it a requirement on MNOs to proactively share relevant data and seek to collaborate with other MNOs and WIPs as regards to developing such sites. Moreover, Ofcom could even potentially consider any approach underpinning the coverage obligations as an opportunity to eventually adopting a more regulated investment regime (as seen in energy markets) whereby MNOs are required to declare and adhere to investment plans linked to their licence obligations and beyond.

Question 7: Do you have any other comments?

30. The difficulty in achieving an equitable 92% geographic coverage in Scotland as alluded to in the consultation document is well understood by the Scottish Government and SFT. However without support from the public sector and appropriate use of regulatory levers, quite simply, it is likely that many parts of Scotland will remain as notspots. We urge Ofcom to consider a variety of alternative approaches beyond what is proposed in the consultation document which have the potential to allow the most remote of communities and geographies to be effectively targeted.
31. We welcome Ofcom's repeated assertion that raising money for the Treasury is not the object of spectrum auctions. So to take this concept to the extreme, we ask Ofcom to consider allocating the 700 MHz spectrum based not on who bids the most, but who proposes the most attractive infrastructure investment plan (and this may take coverage to well beyond the coverage obligations as currently proposed) and foregoing income – potentially all income – the so-called "beauty contest" method.
32. This is on the basis that every pound a MNO spends on acquiring spectrum is a pound less for it to spend on network investment/expansion. Replaying Ofcom's point about the cost of achieving 92% geographic coverage in Scotland, we ask Ofcom to undertake analysis as to what level of coverage could be achieved across Scotland and the UK if spectrum was valued on such a radical basis. We appreciate that such analysis and associated valuation is difficult – reflective of the fact that each MNO's network currently has a different level of penetration and thus each MNO would be at a different starting point. However we believe that such analysis must be taken in order that the true potential coverage impact of the 700 MHz spectrum can be fully evaluated, if an alternative approach of valuing spectrum is used.

33. Flowing from this, we encourage Ofcom to think about the auction process in completely different terms. We recognise that spectrum does have a value, and this could be determined as set out in paragraph 32. Any potential bidder could bid this amount and then based upon guidance from Ofcom as regards target locations/premises (essentially white areas/notspots), map and detail where it would expect to deliver infrastructure. The auction could be run in two stages – indeed accelerating the launch of the auction may be beneficial, later accompanied by Ofcom-provided analysis on the locations of notspots, power and backhaul. This would be a sophisticated way of helping bidders and reflects the position that we have taken with the Scottish 4G Infill programme.
34. In parallel, we encourage Ofcom to consider an alternative approach as is currently being used in France. The French regulator has recently imposed a new regime whereby it has guaranteed the MNOs price stability on annual spectrum fees for the next 10 years in return for their commitment to investing in agreed levels of 4G coverage in the short term. Thus, Ofcom could approach spectrum management in a radically different way. For existing spectrum holdings, using the French approach which has the potential to change the starting point, would see higher levels of coverage sooner and bring parity in coverage levels; followed by a 700 MHz auction in the future.
35. As set out in paragraph 34 above, having set spectrum values and determined the level of investment a MNO will require to make to justify such values, Ofcom must then take steps to ensure that the expected level of investment is ultimately made, along with what evidence it would require from MNOs to demonstrate this. Furthermore, if such a level of investment cannot be demonstrated, Ofcom must consider how it could ensure that any shortfall is invested in additional infrastructure deployment by the license holder.
36. In some ways, Ofcom’s general proposed approach could be considered to be the provision of public sector funding/subsidy. If so, state aid (or any successor approach) requirements may dictate what the funding can be used for. We would welcome Ofcom undertaking (or sight of) analysis to determine any limitations. But as a minimum, Ofcom is encouraged to consider open access requirements, which is the norm in publicly funded telecoms interventions. This would create a potentially different dynamic but would mean infrastructure should be targeted where needed.
37. The definition of not spots and remote/rural needs to be defined. The SFT-commissioned report: *The Economic and Social Impacts of Enhanced Digitalisation in Scotland*⁴ sets out how six urban and rural classifications could be used to drive potential investment activity, and their related impacts: whereby impacts are felt more deeply in remote and rural areas and can actually have greater change. Ofcom is asked to consider incorporating such an approach as part of the auction design.
38. We do not believe that the target data speed of 2 Mbps is sufficiently aspirational. At the very least, Ofcom should consider a more dynamic approach and revisit this regularly to ensure that as technology evolves, the level can be reset at an appropriate level.
39. Whilst we recognise that the spectrum auction is not an infrastructure intervention in the traditional sense, we encourage Ofcom to consider how future proofing requirements could be built into infrastructure investments arising from the auction. Ofcom should

⁴ https://www.scottishfuturetrust.org.uk/storage/uploads/impact_of_digitalisation_in_scotlandcompressed.pdf
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similarly consider how minimum standards about performance including the ability to cope with likely traffic – and upgrade path – could be built into requirements.

40. The consultation document does not make it clear that Ofcom has considered what wider activity is taking place – e.g. the impact of the Emergency Services Mobile Communications Programme (and potential commercial coverage arising) and the Scottish 4G Infill Programme. We welcome Ofcom’s insight into how such activity will impact overall coverage in Scotland, and, in turn, how this has or should influence how 700 MHz coverage obligations for Scotland are set – or changed if expected outcomes of these programmes is not achieved.
41. Ofcom is asked to consider the role of 700 MHz spectrum in the context of 5G where there is expected to be greater convergence of fixed and mobile networks and how this wider broadband services and access.
42. In parallel with the auction process, Ofcom should consider working with winning bidders to ensure consumers are educated on the types of handsets which are required to benefit from services which will be delivered over the 700 MHz spectrum – to maximise the benefits arising from the auction for the general consumer.
43. SG and SFT have undertaken significant work as regards the delivery of 4G infrastructure in coverage – we would be happy to support and help Ofcom, including shaping the basis of the auction. Ultimately, we believe that Ofcom needs to undertake analysis to understand locations, costs, access to power and backhaul: this will give a more rounded picture of the likely auction outcome. Alternatively, we believe that Ofcom needs to undertake a much more detailed analysis and share this as part of the next consultation to test the assumptions and what may be possible. Arguably, SG and SFT collectively have the greatest knowledge across the UK of delivering infrastructure in remote and rural regions in Scotland. We would happy to work with Ofcom and share provide lessons learnt from previous experience.
44. Furthermore, given our non-industry status, SG and SFT are willing to discuss how we could potentially work as part of the auction team to assist the process and sense check the proposals submitted by auction bidders.

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