Scottish Government Re-Write Of PAN62:
Call for Stakeholder Input Via Questionnaire

Submission from Mobile UK

June 2020

Introduction

1. Mobile UK welcomes the opportunity to submit responses to the Scottish Government's questionnaire on PAN62. We understand that this is a prelude to a consultation on a draft rewrite of PAN62. We look forward to commenting on the draft rewrite in due course.

2. Mobile UK is the trade body for the UK's four mobile network operators BT/EE, O2, Three and Vodafone. This response has been prepared with expert input from the mobile operators and also their respective joint ventures Cornerstone and MBNL.

Scottish Government Questionnaire

1. <u>The technical nature of modern communications networks</u>.

   The chapter will focus on how a greater understanding of how radio technology works could be engendered in the document. On the ground, experience suggests that stakeholders do not understand the constraints or possibilities of radio communications. Akin to, for example, 'fibre to the premises' in fixed-line networks. Recent experience with 5G/COVID-19 demonstrates how gaps in understanding of this 'ethereal' technology can result in some serious misunderstandings.

   Mobile UK agrees that a chapter on the technology is essential, the various technical elements influence, and in many cases, dictate the siting and design that LPAs will see coming through in practice as part of applications. As such, this section should be closely aligned to the **siting and design principles** section because those elements are so impacted by the technical constraints (backhaul, frequency propagation, topography, ICNIRP compliance, capacity and coverage.)

   Notwithstanding all the information that needs to be included, it would be helpful to make the document as concise as possible and perhaps with fewer photographs, as there is the risk that the photographs form a sort of 'menu', when in fact MNOs have to deploy a variety of solutions to fit the particular circumstances of a given site.

2. <u>How much technical information should be in the document?</u>

   i.   Would coverage characteristics of different frequencies/wavelengths be useful (pictorially)?

   Yes – to illustrate the potential impact on design. For example, higher frequencies do not propagate through material well and so, in practice, this means antennas (and the masts hosting them) must be taller than all surrounding trees/buildings etc.

   ii. Would basic coverage radii be useful, i.e. how far does signal travel - country vs urban, terrain and built environment?

   No. There is no 'one size fits all' answer to this question – it all depends on the site-specific requirement and local constraints. Too many variables impact this:- technology being used, population density, capacity, topography, local clutter etc. As alluded to in the bullets above, there should paragraphs explaining these constraints and then providing examples of how that influences the infrastructure in practice.

   iii. Both spectrum and health implications lie outwith the planning system. To ensure consistent

messages, should OFCOM/Government provide more up-to-date information on these aspects?

Yes - but the PAN should not go into detail about this. The PAN should simply refer back to the Government/ICNIRP/WHO/PHE advice as the 'competent authorities' and state clearly that where an ICNIRP certificate is provided then health should be given no further consideration as part of the planning process.

iv. Could there be a diagrammatic explanation of backhaul fibre, microwave, VSat?

Yes – this is important but it needs to be related back to how this influences rollout and infrastructure in practice, e.g. no fibre available in a remote part of the Highlands so backhaul to be provided by a microwave dish – this needs LOS to the next site over 10km of undulating Highland topography. This means the mast must be on the top of a hill and sufficiently tall so 'see' the closest location to provide that backhaul. This may have visual impact implications but is a necessity for functionality. Without backhaul there can be no service.

v. What is latency?

Only useful if related to an in practice context – 5G practical use cases

vi. Will 5G apparatus be bigger than 4G? If so, why (e.g. ICNIRP)?

This is tied to both the siting and design section and the technical issues alluded to above. Sites will need to be teller to clear 'clutter', but they will also need to be broader and more structurally robust to host more equipment (more antennas and Remote Radio Units beside antennas) (especially for multi-operator shared sites) and heavier equipment. All sites must be built in an ICNIRP compliant manner.

vii. Could Local Authorities (LA) have a greater role in the provision of communication networks in their area similar to WM5G1 or HIE2? Could LAs have a role in monitoring coverage? e.g. to help ensure new development has coverage? To help inform development plans?

Local Authorities should look to engage and consult with the MNOs when working on development plans or when dealing with large scale applications. Monitoring coverage and compliance with any coverage obligations is the role of Ofcom, though. MNOs work closely with Ofcom to provide up to date coverage data. LAs can have a more significant role in terms of network provision by employing a Digital Champion to work holistically across planning, estates, highways and econ development depts in a 'barrier busting' role. They should have Digital Strategies and supporting local development plan policies that add weigh to material socio-economic benefits attached to connectivity infrastructure. They should make public assets available for consideration with ECC based compensation agreements to promote their use.

3. <u>The demand for modern communications services and the interaction with the networks.</u>

This section will focus on how a greater understanding of data demands and opportunities from the technology can be engendered through the document. Experience still suggests a reluctance to accept new technologies without a better understanding of its advantages and abilities.

This section is vital as it allows the public, elected representatives and decision-makers in planning to understand the in-practice real-life socio-economic benefits that this service will bring. This will assist planners in their planning balance.

This should be at the beginning of the document and given the UK/Scottish Government

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[1] https://www.wm5g.org.uk/
[2] https://www.hie.co.uk/our-region/regional-projects/betterconnected-broadband-fibre-digital/

perspective tied to national initiatives and policy that discusses digital connectivity, so the weight that should be attached to material benefits is clear:

- UK Government Future Telecoms Infrastructure Review
- SRN
- Scottish Government Digital Strategy doc
- Scottish Government Forging Our Digital Future with 5G doc
- Scottish Government Mobile Action Plan context
- Any regional/city-wide 'Smart City' initiatives across Scotland – underpinned by 5G connectivity
- Upcoming NPF4 context

i. What is 5G, and how does it differ from 4G? How many more base stations required and what will it look like 'on the ground'?

The PAN should not be too specific to any one technology or get into the 'how many more base stations' discussion, which is not known. Mobile networks will be built to deliver the coverage, capacity and capabilities demanded by customers and applications (including 'machine to machine connections – aka IoT). Upgrading them will benefit the economy, and underpin advances in health and social care delivery, energy-efficient cities and connected transport (all of which also helps us adapt to/combat climate change)

ii. How can we ensure that decision-makers are well enough versed with technology to make decisions on policy and individual applications/appeals?

This is one of the key purposes of the PAN. This should then be directly related to policy documents like NPF4 that should be abundantly clear on the weight that should be attached to material socio-economic benefits

iii. Bearing in mind capacity issues in urban areas, could capacity be pictorially represented in the same way as coverage is via plots?

Mobile UK does not feel this would be helpful or practical. (Capacity data is typically commercially sensitive to MNOs and so are never issued in planning applications, which become public documents.

iv. Should we include 5G case studies in the document? e.g. healthcare or driverless cars

Yes – WM5G have numerous documents on this that could be utilised. Education is another good case study.

v. Planning orthodoxy (and legacy policy/guidance) formed when communications and data was a luxury. Now a vital element of everyday life for most – Should guidance be bolder to reflect this?

Yes. All comments above reflect that opinion.

4. Stakeholder engagement.

This section will deal with stakeholder involvement and how best to foster good communication between industry, government, and stakeholders, i.e. how do groups want to be involved, should they be involved and their knowledge base.

i. Does the current Traffic Light Rating model work?

The TLR model has some flaws and should be reviewed. It may be an overly difficult or prescriptive system.

ii. Could Local Authorities have a greater role[3]?

Engagement with the LA is vital, and buy-in from the LA at early stages would assist in streamlining the process in ensuring the most appropriate, viable, siting, and design comes forward from the beginning. LAs need to be willing to have pre-rollout holistic engagement with MNOs about their wider (non-site specific) plans as this will be mutually beneficial. There should be no charge for this. On a site-specific basis, LA should look to engage with MNOs at the earlier stage and provide useful feedback. Fees should be reflective of, and relative to, the cost of an application submission.

If it is vital that the PAN makes clear that the Best Practice guidance applies to both the MNO and the LPA – not just an expectation on the MNO. The LPA should also be committed to proactive engagement that seeks to find a solution while being appreciative of the technical constraints and need for service provision.

iii. Should statutory bodies have more, proactive, input into the process?

It is essential that other bodies feel they have a stake in this process and that such bodies recognise the importance of excellent connectivity and work with MNOs to bring this about.

5. Planning applications.

This section is to ensure that planning applications contain all the information required for good decision making and to ensure that all stakeholders understand what is being proposed

i. Do you think planning applications contain sufficient information?

Applications should contain enough information to allow an LPA to make an informed decision. Telecoms infrastructure is very technical, and so there should be sufficient technical justification and explanation to allow a 'lay-person' decision-maker or stakeholder to understand the rationale that dictates siting and design, or the need for a site. The PAN has a responsibility to provide guidance on these elements to negate every planning application becoming overly detailed with repetitive information.

Generic technical elements should be included in the PAN and then site-specific rationale, which relates to the generic elements, included in the application submission.

ii. Should a planning application contain more information than a prior approval application?

In theory, yes. An application for prior approval is 'permitted development' where the principle of the development has already been established in the GPDO. An application for prior approval is expected to be a relatively light-touch approach where determinations can be made on siting and design only. This all should be made clear in the PAN.

For this reason, it would make sense that full planning applications contain more information, given more elements are open for consideration.

However, in practice, the industry typically submits just as much information with an application for prior approval as they do with full planning applications. Typically, for applications for prior approval, the industry will provide additional supplementary information well beyond the statutory validation requirements specified in Class 67 of the GPDO.

Full planning application submission validation requirements are already stipulated in national and local law. This should not be added to. There will always be varying degrees of quality with applications depending on the applicant, agent or individual – this is the case across all

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[3] See also question in Section 1

types of development. However, the PAN may be able to provide guidance regarding what types of additional supplementary information may be useful to build a more robust application in particular circumstances when particular designations or constraints are present.

iii.   As critical infrastructure, should LVIAs, HIAs etc. be required for applications/prior approvals? If so, what should trigger the requirement?

No, there should be no requirement for this. Standardised proposal drawings (already a validation requirement) should be sufficient for any planning professional to make an appropriate assessment of, and appropriate consideration to, any proposal, based on the various constraints.

There will always be site-specific circumstances that dictate that additional information may be required to make a better informed, considered, determination, but this should be on a site-specific basis based on local sensitivity and designation. It is inappropriate to suggest that every proposal within a National Scenic Area or National Park should have an LVIA for example – the visual impact of many proposals will be easy to consider without an LVIA using just drawings. However, in some such circumstances, it may be needed, and in these cases, Case Officers should request them if the MNO agent has not felt it appropriate to pre-emptively include them as part of the initial submission. This is just one example, but this applies to all potential landscape or heritage designations, for example.

It is certainly inappropriate for this to be a requirement for prior approval applications - an application for prior approval is 'permitted development' where the principle of the development has already been established in the GPDO. An application for prior approval is expected to be a relatively light-touch approach where determinations can be made on siting and design only. This all should be made clear in the PAN. This does not mean that additional information cannot be requested, but it should not be mandatory.

Any trigger for additional information should be based on the localised site-specific requirement and assessment.

iv.   Should there be a checklist?

A checklist can become overly onerous and prescriptive, adding unnecessary complexity. Requirements should be determined on a site-specific basis based on local designations and constraints.

The GPDO already makes clear what is required as part of an application for prior approval, while national and local guidance makes clear what is expected as a minimum for full planning application validation. This should be sufficient, with the requirement for additional supplementary information (environmental, ecological reports, etc.) depending on the local site-specific requirement.

6.   Principles of good siting and design.

This section will focus on the design and siting implications of 5G and SRN and how will, this change the perception of good siting and design and the 'visual expectations that go alongside.

Siting and design are directly influenced by technical factors alluded to before. These technical elements have a direct impact upon siting and design, and so the perception of 'good' siting and design must change to take account of that.

i.   More masts equal more coverage…however 'proliferation' is generally still perceived as bad. Do you think this perception needs to change?

This perception has to change. Mobile networks will be built to deliver the coverage, capacity

and capabilities demanded by customers and applications (including 'machine to machine connections – aka IoT). Upgrading them will benefit the economy, and underpin advances in health and social care delivery, energy-efficient cities and connected transport (all of which also helps us adapt to/combat climate change).

Mobile UK has also been making that point that incentivising more mast sharing through the planning system will help to make network deployment as efficient as possible, recognising that many shared sites have to be structurally sound enough to host all of the equipment at the correct height (which adds further structural pressure with wind loading etc.).

ii. Should we move away from the 'series of options' as this implied a sequential test, whereas a new ground-based mast is often the only or best solution and/or site share is often better than mast share?

It makes sense that there should still be a list of discounted options to demonstrate to the decision-maker that the proposed installation is the most appropriate siting and design available. This kind of sequential test is fine, but decision-makers should trust the reason for discount, and it should not need to be supported by excessive information.

It should also be made clear that discounted options and sequential test are not a requirement for a replacement/upgrade proposal. The principle of the existing site is well established, and it was determined to be the most appropriate siting at the grant of the initial approval. There is no benefit in recovering something that was previously addressed in the initial application.

However, it must be noted that search areas have become smaller. So there will be fewer options to be considered – this is simply due to the different propagation properties of 5G meaning the infrastructure is required exactly where the demand is. It should also be made clear that, while Code is available, a third party site provider being unwilling to accommodate telecoms is still a valid reason to discount an option.

iii. Can we adopt a general principle on siting near heritage and environmental assets, i.e. is a low impact design on asset better than a high impact design on an adjacent asset?

No. Conservation Areas and National Parks (etc.) require modern digital connectivity as much as the rest of the country does. Conservation Areas often cover the main commercial areas within our towns and cities, and National Parks depend on connectivity for tourism etc.

The technical constraints and limitations of the infrastructure also continue to apply in these protected areas, and this dictates the siting and design solution.

As such, it is not appropriate to try to establish general principles – consideration must be given on a site-specific basis depending on local constraints. It is acknowledged that in these areas, the most sensitive and appropriate solution available should be put forward, but it must remain functional. MNOs and their agents should work proactively with LPA Officers to try to find a mutually suitable solution while being mindful of technical constraints and the need for connectivity.

iv. Are there areas where you think should be 'coverage free'?

No, the goal must be for coverage to be ubiquitous or risk areas with social and economic disadvantage. Economic issues aside, there are social elements - all areas require connectivity to emergency services etc.

Covid-19 has demonstrated the dependence on connectivity nation-wide for people to work from home, businesses to keep in contact with customers, emergency services/NHS contact or contact with isolated, vulnerable friends/family – no area should be deprived of those benefits.

As per the previous question, all protected areas require modern digital connectivity for their overall and long term sustainability.

v. Will ICNIRP considerations affect the design on 5G?

  a. Implications for street pole design and height?

  Yes – given an exclusion zone cannot be effected at the base of a mast via a compound (which is the case in greenfield ground-based designs) it may be required to increase the height to ensure ground level ICNIRP compliance. The required height is determined by the equipment to be deployed and site-specific circumstances in the location.

  b. Implications for rooftop design and height?

  Yes – this will depend upon the accessibility of the rooftop. It may be determined that more safety demarcation and railings etc. are required for rooftop safety or, for example, it may mean the whole design must change in terms of antenna heights or positions. This may be in case the entire roof must be accessible for fire escape., for example. Again, this is considered at a site-specific level.

7. <u>Principles of good construction</u>.

This section will focus on how construction (inc. access) can influence siting and design and ensure sensitivity depending on location.

Mobile UK does not agree that this should form part of what is, in principle, a planning document. Construction principles are managed via Building Control standards and were appropriate (environmental or protected tree issues) Construction Management Plans may be required for approval as part of the pre-commencement condition (on Full Planning only as additional conditions cannot be attached to prior approval applications beyond those specified in Class 67).

vi. Would you support more information provided with applications to reduce the need for conditions or are conditions useful to create certainty, e.g. CEMP[4]s?

This is typically not a planning consideration and should not be included.

vii. Should the industry use local contractors more often?

Not appropriate in a planning document

viii. Do you think upgrade requirements or standards on new access for mast are too onerous[5]?

Yes – this infrastructure is a nationally significant utility. Access requirements should not be so onerous that it makes deployment and maintenance of the infrastructure so difficult or commercially unfeasible that it cannot proceed.

ix. Are you familiar with the recent guidance from SNH on track construction[6] , and do you try and ensure compliance through contractors?

Yes

x. Could and should industry adopt an all-party MSV[7] approach as best practice?

This has sound logic in theory, but in practice, this is impossible to coordinate at a national level when a rollout includes thousands of sites at any given time.

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[4] Construction and Environmental Management Plan

[5] This can lead to a creeping urbanisation of rural roadsides

[6] https://www.nature.scot/constructed-tracks-scottish-uplands

[7] Multi Skilled Visit – a design visit where all interested parties should be present and all issues can be discussed and resolved on site before a site progresses. Recent experience suggest that these are attended by increasingly small numbers of parties