



of Wales Consultation on the Consolidation of the Town and Country Planning (Use Classes) Order 1987 and Town and Country Planning (General Permitted Development) Order 1995

Response from Mobile UK

About Mobile UK

Mobile UK is the trade association for the UK's mobile network operators - EE, Telefonica UK (O²), Three and Vodafone. Our goal is to realise the power of mobile to improve the lives of our customers and the prosperity of the UK.

As mobile increasingly becomes the device of choice for running daily life both at home and at work, customers have come to expect more extensive coverage, more capacity and greater capabilities. Our role is to identify the barriers to progress, and work with all relevant parties to bring about change, be they Government, regulators, industry, consumers or citizens more generally.

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Introduction

Mobile Communication – relevance to the Welsh economy

1. This consultation on new permitted development rights present Wales with a very timely opportunity to redress an in-built disadvantage that exists in Wales arising both from geography and more restrictive planning legislation than in other parts of the United Kingdom.
2. Over the next few years, the industry will be rolling out the next generation of technology (5G), in addition to continued expansion of 4G. Getting to scale quickly will be crucial to the success of 5G, and Wales does not want to find itself again at a disadvantage from a legislative point of view.
3. With the timing and cycle of planning reform, Wales is well placed to leapfrog, as it were, other jurisdictions and to design a regime of PD that not only reflects the very challenging topography of Wales but also recognises the benefit of rapid 5G deployment, where it is required.
4. In the last 10 years or so mobile communication has joined other services such as power and water to become part the UK's essential infrastructure. 95% of adults own a mobile device. As a key indicator of the mobile's evolving place in our lives, advertising spend on mobile has risen from near zero in 10 years to £5.7 bn¹, more than the total annual spend on TV advertising, and about 50% of all digital advertising.
5. Even though the market reached maturity in terms of subscriber numbers some time ago, the introduction of smartphones in 2007 and the deployment of 4G from [2013] has led to a very rapid rise in total network traffic – a rise that is set to continue for the foreseeable future.
6. With respect to the **Welsh society and economy**, mobile connectivity makes a number of very important contributions, for example:

Social inclusion

- 95% of people own a mobile device. Entry cost is very low (£15 for a basic phone) and only 0.2% of households are now in a mobile 'not spot'

¹ <https://www.statista.com/statistics/281750/mobile-advertising-spending-in-the-united-kingdom-uk/>

- Those looking for houses and jobs can be alerted by text message of new opportunities. Research shows that good mobile connectivity increases participation in the labour market.
- Mobile connectivity supports flexible/home working, particularly in rural areas. 22% of people in rural areas are home workers v [% in the urban areas]

Safety

- From April 2018, all new cars sold in the UK are fitted with E-Call (whereby an automatic call is made to 999, with location, in the event that an airbag is triggered)
- Tourists and visitors can use navigational tools and call for assistance, if required (on any network)
- Lone workers in remote places can be better safeguarded

Economic activity

- Applications enable greater efficiencies in both the manufacturing and services sector (for example connectivity and trackability in supply chains is becoming increasingly important)
- Providing access to services such as banking and retailing, where the physical footprint of such facilities is reducing
- Supporting other large parts of the Welsh economy, such as healthcare and other public services
- Providing mobile connectivity to the UK's 39 million incoming tourists (many of whom go to rural areas) and the 70 million visitors to National Parks (almost all of which are in rural areas)

Mobile Communication – coverage in Wales

7. In response to this rapid rise in the importance of mobile connectivity, mobile operators have played a central role in driving this progress by continually investing in their networks, value-added services, and subscriber acquisition. In the current cycle, mobile operators are investing around £2 billion per annum in new coverage, capacity and capability. In turn, business and consumer customers have shown extraordinary ingenuity in harnessing the power of mobile, to be more creative and productive, to offer new services, and to improve lives.
8. As a consequence, the measurements Ofcom publishes every six months or so have improved markedly.
9. 99.3% of premises in the UK have indoor data coverage (i.e. 3G or 4G) from at least two operators (and for 4G, the figure is 96%). Only 0.23% of premises have coverage from no operators. Perhaps unsurprisingly, 95% of those who have no indoor coverage live in the least densely populated areas (i.e. those with fewer than 2 residents per hectare)
10. That said, while there have been huge improvements from around £10 billion of investment in new coverage, capacity and capability, of the remaining parts of the UK still without a signal, the great majority lies within the hardest to reach places such as remote regions of Wales (and Scotland), including the road network.
11. Moreover, mobile operators are starting to declare their intent to deploy the next generation of mobile technology (5G) in the coming years. Initially, this is likely to entail

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at least an overlay of the 4G network, where some sites may need to be renewed, enlarged and strengthened to accommodate new antenna and radio equipment. Looking to the future, where capacity and connectivity needs demand, small cells will be deployed to deliver the very high bandwidth and low latency of which 5G is capable.

12. With 4G, planning reforms in England, for example, came too late to be of any material assistance in rapid deployment. This was one of the reasons that the UK fell behind other countries.
13. With 5G, there is now an opportunity to implement reforms in advance of deployment. This is particularly so in Wales, where the legislative cycle is the most closely aligned with 5G rollout.
14. If all 5G deployment, other than in the most sensitive places, can be regarded as *de minimis* (small cells) or executed under permitted development (macro cells), the opportunity to get to scale quickly will be very much enhanced. Getting to scale, and realising the accompanying economies, will be key to ensuring that the UK establishes the world leadership to which the Government aspires.
15. Thus, the cost saving of PD v full planning is very much a secondary issue when compared to the strategic importance of moving quickly and with the added certainty that development under PD or *de minimis* confers.
16. The mobile operators will continue to invest in new coverage, capacity and capability; the respective governments' contributions, at all levels, is to allow that investment resource to go further and faster by, among other things, removing unnecessary regulatory barriers.

Mobile Communication – evolution over 30 years

17. Mobile operators will also continue to employ a combination of past technologies and different frequency bands. Modern mobile broadband networks are now comprised from a synthesis of succeeding generations. Of the technologies deployed, only analogue has been completely retired and withdrawn.
18. The first [analogue] mobile networks were launched in the UK in 1985 (first generation). 2G (the first digital) in 1992, 3G in 2003 and 4G in 2012. Along the way, many new blocks of spectrum between 800MHz and 2.4GHz have been licensed to and deployed by mobile operators. In the future, further blocks will be auctioned and deployed (700MHz, 3.4GHz, millimetre wave blocks [>30 GHz]).
19. Faced with a rapid rise in total network traffic (7 times in the last 5 years) and consumer expectations of good broadband speeds, mobile operators are having to employ all the resources at their disposal (spectrum & technologies) and also use innovative techniques such as carrier aggregation to continue to deliver a high quality service. This is a highly complex radio engineering challenge. Consequently, operators need as much flexibility within the planning regime to accommodate the equipment (antennas and ancillary apparatus) needed to meet customer expectations.

Responses to questions (relevant to the deployment of mobile equipment) in the consultation document

Q20 Do you agree that developers and LPAs should be able to agree longer determination periods for the consideration whether prior approval is required?

Yes – this ability to extend provides flexibility to both LPAs and MNOs to find solutions when the necessity/request for extension is reasonable.

Q25 Do you agree with the introduction of permitted development rights for the installation of smart meter antenna?

Yes – there should be PD rights for smart meter antennas on dwellings etc but mobile operators should also be afforded at least the same rights to add 5G antennas to identical dwellings/buildings, even in protected areas, for the same reasons.

Q34 Do you agree with the proposed increases in height for the installation, alteration or replacement of a mast on protected and unprotected land?

Paragraph 3.87 is very concerning. In England, Scotland and NI (and NI's draft legislation adds to this) there are parameters for replacement/upgrade height increases without prior approval in both Article 1(5) locations and outside. Wales must follow suit.

Mobile UK does not agree that the suggested height parameters go far enough – Wales has among the most difficult topography and scattered population in the UK and so more height is needed for backhaul line of sight and to maximise coverage to make sites in these areas both technically viable and commercially feasible. Lack of backhaul line of sight due to lack of height could mean additional rural sites continue to be not viable.

In the attached Confidential Annex Mobile UK is providing an example (take from Argyll in Scotland, as it happens), where a higher mast was able to achieve line of site (LOS) with neighbouring sites and thus. Confidential Annex 1 shows the coverage where site 385 is under 30m. Confidential Annex 2 shows the coverage achieved where site 385 is at 30 metres and it is able to link in 2 satellite sites to deliver coverage in local pockets. This is the type of scenario that is very likely to be helpful in the remaining harder to reach places of Wales. Without sufficient height to achieve LOS in difficult topography then there will be many cases where it is impossible to make remote sites live at all – resulting in it being impossible to service some rural communities. While the example provided shows lost coverage across the villages and a ferry route, this principle is entirely transferable to a

valley floor where, commonly across rural Wales, communities, housing and transport infrastructure is located.

30m masts will also provide extra geographic footprint in some situations, where increased height is needed to overcome topography and maximise coverage (something that can be assessed in propagation tools using OS and topography data), it is also needed to clear 'clutter' in the form of trees and buildings (something the propagation tools can't 'see' as the data cannot be built into the tools. Taking account of the specific challenges in rural parts of Wales, as against other regions of the UK, a more progressive PD regime for mast heights would be beneficial.

Q35 Do you agree with the change to mast width described in relation to the alteration or replacement of a mast?

The proposed addition of 1m or 1/3, whichever is the greater is potentially welcome but there is a strong argument for relaxing this parameter even further. As mentioned above, some existing sites will have to be reinforced to accommodate more antennas and equipment. Moreover, it is anticipated that 5G antenna will have a design that integrates more of the radio apparatus than up to now (to achieve some of the advanced radio techniques being deployed), resulting in the antennas being heavier. Consequently, masts will have to cope with increased wind loading and thus be more robust (particularly in some of the exposed locations where coverage is required in Wales). It would therefore be very helpful to specify that the 1/3 or 1m (whatever is the greater) parameter applies to the mast (being replaced) at its widest point (and remove 'at any given height' and that this dimension can be used for the upgraded mast. In other words a tapered structure can be converted into a structure with vertical sides, rather than mirror the shape of the existing structure.

Q36 Do you agree with the definition of 'small antenna' and 'small cell system'?

Mobile UK believes there is considerable scope for **simplification** in this whole section. Reference to different types of pico, femto, small cell is not helpful to local planning authorities. Nor does it make sense to distinguish what can be done with the antenna of a small cell and what can be done with the ancillary equipment, some of which might be externally visible and some of which may not be, depending on the design of that particular installation. Looking to the future, we could see equipment that is more integrated in design.

Mobile UK thinks that the best approach would be to focus on simply 'small cell systems' (including the antenna) and on the allowable dimensions.

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The design of small cell systems for range of frequencies that will be used for 4G and for 5G, including 'millimetre wave' bands above 30GHz is under continuous development from multiple manufacturers. Wherever possible, as has been shown with networks rollout up to now, mobile operators will look to deploy within what is allowed under permitted development; the time and resource involved in going to full planning demands it.

As such, the more flexibility the Welsh Government can provide in this respect, the more likely that it will be straightforward to rollout small cells in due course. Increasing the cubic capacity to 60,000 cubic centimetres and simplifying the measure will be helpful:

'Small systems' means an antenna, and any apparatus ancillary to that antenna which: (i) operates on a point to multi point or area basis in connection with an electronic communications service (as defined in section 32 of the Communications Act 2003); (ii) does not, in any two dimensional measurement, have a surface area exceeding 5000 square centimetres; and (iii) does not have a volume exceeding 60,000 cubic centimetres; And any calculation for the purposes of paragraph (ii) or (iii) includes any power supply unit or casing, but excludes any mounting, fixing, bracket or other supply structure.

Q37 Do you agree with the proposed changes to small antennas and small cell systems allowed on buildings and structures (other than dwellinghouses and within their curtilages) in unprotected areas, and protected areas?

Mobile UK welcomes these are positive steps but PD rights for small cells in protected areas should also come without the necessity for prior approval – they should be straight PD. There must be the ability to utilise PD regs **without** prior approval, even in Article 1(5) locations.

Q38 Do you agree with the changes to permitted development rights for small antenna and small cell systems on dwelling houses and within their curtilages in unprotected areas; and dwelling houses in protected areas and conservation areas?

Mobile UK welcomes these positive moves but, again, there is scope to go further. The existing restrictions on buildings within 20m and facing a highway **must** be removed. It is both unnecessary and counter-productive. If the logic for retaining this restriction is for visual amenity grounds then it is counter-productive – rooftop antennas on the top, flat, section of a rooftop (where there is no such restriction) are more prominent with greater visual impact protruding above the building outline and in the skyline silhouette than facemounted antennas that are attached against the backdrop of the building with no protrusion above and coloured to match the building it is attached to. So the facemounted

within 20m of a highway is counterproductive where 5G may require many small cells in urban areas.

Q39 Do you agree these changes are sufficient to accommodate the likely needs of future network requirements?

No. For reasons alluded to in answering other questions (limitations meaning cells in protected areas may need prior approval) mean that progress will be significantly hampered and slowed unnecessarily. If Local Planning Authorities are overwhelmed with unnecessary applications for prior approval that will slow down progress and stretch LPA resources. The same applies to the 'face or slope facing a highway' restriction – in practice this will create the need for numerous unnecessary applications that will slow progress and roll-out of 5G technology.

Furthermore, it would be appropriate that mobile operators benefit from the same rights as set out by fixed operators, that being; allowing telegraph poles to be PD for the use of small cell antennas and equipment cabinets adjacent. It seems logical that if a fixed operator can install a telegraph pole under a notification then the installation of the same structure but with an antenna (camouflaged if necessary) would also seem appropriate. This would allow a far greater number of installations in designated areas and rural communities where the availability of tall buildings and structures is sparse.

Q40 Do you agree with the changes to other antenna system and to the increase in numbers of electronic Communications code operators present on a building? This is a positive step but a **major** issue that needs rectified if these changes are to accommodate the needs of mobile operators to rollout 5G technology across Wales. Furthermore, there are the implications of the 'Forsythia House' judgement². The interpretation arrived at in this case will create uncertainty and the need for numerous prior approval applications. The legislation around rooftop antennas must be written and worded appropriately to avoid the Forsythia interpretation so that it is clear that rooftop antennas and their supports/fixings are Permitted Development without prior approval and they are **not** 'masts' interpreted akin to a ground based mast.

Q41 Do you agree to an increase in the time from 6 months to 18 months, where land may be used in an emergency to station and operate moveable electronic communications apparatus required to replace unserviceable equipment?

² <http://www.landmarkchambers.co.uk/cases.aspx?id=5471>

Yes, this is positive but it is important that 'emergency' and 'moveable' are clearly defined within the Part 24...

““emergency works”, in relation to the operator or a relevant undertaker for the purposes of paragraph XX, means works the execution of which at the time it is proposed to execute them is requisite in order to put an end to, or prevent, the arising of circumstances then existing or imminent which are likely to cause –

(a) Danger to persons or property;

(b) The interruption of any service provided by the operators network, or as the case may be, interference with the exercise of any functions conferred or imposed on the undertaker by or under any enactment;

or,

(c) Substantial loss to the operator or, as the case may be, the undertaker, and such works as in all circumstances it is reasonable to execute with those works”

'Moveable' should make clear that the proposal does not need to be on wheels to be considered moveable; Mobile UK has always argued that 'moveable' simply means non-invasive, non-permanent, that could be relocated at some stage – this could include sitting on wheels, sitting upon gravity based concrete plinths etc etc and the legislation should be written to reflect this.