

SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	North England_1	Site Address:	Yearhaugh Forestry Reserve, Compartment 2, East Woodburn, Hexham, Northumberland, NE48 2SB
NGR:	NGR: E 390560 / N 588455		
Site Ref Number:	CTIL_110616_TEF_73027_6842	Site Type: ¹	Macro

2. Pre Application Check List

Site Selection (for New Sites only)

(Would not generally apply to upgrades/alterations to existing sites)

Was an LPA mast register used to check for suitable sites by the operator or the LPA?		No
If no explain why: Application is an upgrade to an existing site.		
Was the industry site database checked for suitable sites by the operator:		No
If no explain why: Application is an upgrade to an existing site.		

Annual Area Wide consultation with local planning authority

Date of information submission to local planning authority	07/10/2014
Name of Contact	Jennifer Adamson
Summary of any issues raised:	No issues raised.

Pre-application consultation with local planning authority

Date of written offer of pre-application consultation:	22/10/2015
Was there pre-application contact:	Yes
Date of pre-application contact:	N/A
Name of contact:	Chief Planning Officer
Summary of outcome/Main issues raised: No response received to date.	

¹ Macro or Micro

Ten Commitments Consultation

Rating of Site under Traffic Light Model:	Red	Amber	Green
Outline Consultation carried out:			
Consultation with Ward Councillor Mr J. Riddle, Parish Councillor Ms C Allen and local MP G. Opperman MP.			
Pre-application consultation letters were sent to these parties on the 22/10/2015.			
Summary of outcome/Main issues raised:			
No specific comments received to date.			

School/College

Location of site in relation to school/college:
N/A
Outline of consultation carried out with school/college:
N/A
Summary of outcome/Main issues raised:
N/A

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation (only required for an application for prior approval)

Will the structure be within 3km of an aerodrome or airfield?		No
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?		N/A
Details of response:		
N/A		

Developer's Notice

Copy of Developer's Notice enclosed?		YES
Date served:		5/11/2015

3. Proposed Development

The proposed site:
Background
Telefónica UK Ltd has entered into an agreement with Vodafone Ltd pursuant to which the two

companies plan to jointly operate and manage a single network grid across the UK. These arrangements will be overseen by Cornerstone Telecommunications Infrastructure Ltd (CTIL) which is a joint venture company owned by Telefónica UK Ltd and Vodafone Ltd ("the operators"). Due to the dramatic rise in the use of mobile data, the industry has had to consider new operating models that are efficient at delivering 3G and 4G services to a much larger percentage of the UK population, as well as supporting 2G services. Both companies pledge to close the digital divide between rural and urban areas targeting 98% indoor population coverage across 2G and 3G by 2015. The agreement will also lay the foundations for two competing 4G networks to deliver the capability for a nationwide 4G service faster than could be achieved independently.

The agreement allows both organisations to pool their basic network infrastructure, while running two, independent, nationwide networks allowing consumer choice. By doing this, they will both reach far more of the country far faster than they could achieve on their own. This single network grid will automatically increase each operator's footprint by 40%, adding competition and choice for customers in areas that previously only had one operator's coverage available.

Following agreement with the two operators, some ownership of the equipment will change to allow the commissioning of the proposed Multi-Operator Radio Access Network ("MORAN") required to deliver the single network grid. This will have little impact from a planning standpoint, however, it forms an important part of the agreement between the companies. It will also provide enhanced capacity for both operators' customers in the future, which will be especially important with the recent launch of the 4G networks. Therefore from a customer perspective they won't see any change as customers will continue to use each operator's network. This agreement is about consolidating infrastructure assets, clearing the way for innovation and the creation of new services that customers really want.

CTIL and Telefónica UK Ltd are looking to progress works which will entail the upgrading of their existing radio base station site on land at Yearhaugh Forestry Reserve. The proposal is to upgrade the site to enable a single network grid supporting modern MORAN technology for both Telefónica UK Limited and Vodafone Limited. The site will be operated by CTIL and Vodafone UK Ltd but the upgrade will enable both operators to provide future MORAN services from the existing site on land at Yearhaugh Forestry Reserve, East Woodburn, Hexham, Northumberland, NE48 2SB.

The site is located within Yearhaugh Forestry Reserve a managed forestry reserve. It is located just off from an access track to the east of an unclassified road. It is to the north of the settlements of East and West Woodburn and the east of the main A68. There are dispersed farmsteads to the west of the forestry reserve and the mast. The existing mast is seen in relation to the adjacent forestry planting, some of which meets and exceeds the height of the existing mast. The site is in a very rural area.

The existing radio base station is located within an enclosed compound made of a post and rail fence and comprises of a galvanized grey 17.5m monopole supporting 2 no. and 1no 0.3m Transmission Dish. The replacement upgraded installation comprises a 27m Lattice Mast supporting 2no replacement antennas; 2no RRUs mounted on the mast legs; 1no replacement 0.3m Dish and 1no additional 0.3m Dish. There is 1 no. meter cabinet and 1 no. equipment cabinets at ground level for which will be retained, additional equipment will be housed within the existing cabinets.

Enclose map showing the cell centre and adjoining cells:

This is an upgrade to the existing site to fundamentally enable the operators to jointly operate and manage a single network grid across the UK, using MORAN technology, in accordance with the CTIL joint venture arrangements.

Type of Structure: 24m (overall height 27m) lattice mast

Description:

The proposed development relates to the upgrade to an existing radio base station which includes the installation of a 27m Lattice Mast supporting 2no replacement antennas; 2no RRUs mounted on the mast legs; 1no replacement 0.3m Dish and 1no additional 0.3m Dish. There is 1 no. meter cabinet and 1 no. equipment cabinets at ground level for which will be retained, additional equipment will be housed within the existing cabinets.

Utilising an existing established telecommunications radio base station site is considered to be more sequentially preferable than the installation of a new ground based installation for the operators elsewhere within the cell area, which would lead to the proliferation of masts. As such, alternative sites have not been considered.

Overall Height:	27 Metres
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Height of existing building:	N/A
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Equipment Housing (WxDxH): 3.7m x 2.5m x 2.8 m and meter cabinet: 0.9m x 0.3m x 1.1m

Materials:

Tower/mast etc – type of material and external colour:	Grey
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Equipment housing – external colour:	Grey
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Reasons for choice of design:

The operators have occupied this site for a number of years. The site now comprises a 17.5m monopole mast supporting 2 no. antennas. There is 1 no. meter cabinet and 1 no. equipment cabinet at ground level. Whilst this structure provides 2G (voice) coverage to the immediate area the upgraded site is needed to allow the two companies to operate and manage a single network grid across the UK, using MORAN technology. As well as allowing each operator to increase their overall footprint by 40% nationally, it enables 4G into the network.

The use of MORAN technology will allow the operators to increase their national footprint and enables 4G technology. To achieve this, the replacement and additional equipment to be attached to the existing support structure is necessary which will allow the required MORAN technology solution within a single site. Therefore the applicant's proposals involve the accommodation of all technologies within the same site. It is highlighted that in continuing to utilise an existing telecommunications installation this would ultimately reduce the need to introduce a new installation in to this cell area. This will avoid the need for added proliferation of new masts within the surrounding area whilst allowing the expansion and improvement of the electronic communications networks, including telecommunications and high speed broadband.

The proposal is minimal with 2 no. antennas replacing the existing ones together with 2 no. RRUs, 1 no. additional 0.3m transmission dishes. The proposed mast would be at an overall height of 27 m which is required to enable both operators to provide 2G (voice) and 4G (high speed data) and the provision for enhanced 3G (data) services from this single site in this location.

The technical requirements of mobile communication operators such as the applicant are acknowledged in the National Planning Policy Framework (NPPF) which states that local planning authorities should support the expansion of electronic communications networks, including telecommunications and high speed broadband.

Placing masts near similar structures and utilising simple and unfussy designs is acknowledged in the 'Code of Best Practice on Mobile Network Development in England' to be less likely to dominate and be in discord with the landscape and as a result less likely to have a detrimental impact on the visual amenity of the surrounding area. This design is considered to be an appropriate solution being an open lattice design to allow views through the installation. It shows the applicant's efforts to help mitigate the proposals impact on the visual amenity, whilst also ensuring that proliferation of masts are reduced by the utilisation of existing structures by two operators as outlined within NPPF.

In light of the operators' efforts to design the best solution for this particular site so as to minimise the impact of the development on the environment, it is considered that the appearance of the replacement column would not seriously impact on the visual amenity of the area, nor would it form an obtrusive feature within the landscape.

It is therefore considered that the proposal before you strikes a good balance between environmental impact and operational considerations. The proposed height and design represents the best compromise between the visual impact of the proposal on the surrounding area and meeting the MORAN technical requirements for the site. Taking all matters into account it is considered that this proposal to deliver the capability for a MORAN service for two competing operators from a single network installation would not appear out of place within the street scene.

4. Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached	Yes	
International Commission on Non-Ionizing Radiation Protection public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines.		
When determining compliance the emissions from all mobile phone network operators on or near the site are taken into account.		

Frequency:	2G 900/1800MHz, 4G 800MHz
Modulation characteristics ²	2G (900/1800) –GMSK 4G (800) - QAM
Power output (expressed in EIRP in dBW per carrier)	800 MHz 31dBW 900/1800 MHz 32 dBW
<p>In order to minimise interference within its own network and with other radio networks, Vodafone UK Ltd operates its network in such a way that the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.</p> <p>As part of Telefónica UK Ltd.'s network, the radio base station that is the subject of this application will be configured to operate in this way.</p>	

² The modulation method employed in 2G (GSM) is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase modulation

The modulation method employed in 4G (LTE) is 64 QAM (Quadrature Amplitude Modulation) which is another form of Phase Modulation

All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, which is responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference.

The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.

5. Technical Justification

Reason(s) why site required e.g. coverage, upgrade, capacity:

A mobile phone transmitter is designed to cover a specific area and links its coverage to the next site in the network, creating a patchwork of overlapping coverage 'cells' across the county. So, if a person is on the move, the network will transfer their calls from one site to the next. However, in certain areas there will be gaps between these cells, resulting in a loss of coverage. This can be for a variety of reasons, the most common being topography or buildings which block the path of the signal. The operators' network rollout programme is designed to identify and address these gaps within their coverage and ensure that people can use their phones whenever and wherever they are.

The application is supported by a document "Planning Plots" which shows the significant improvements to network coverage as a result of the current application.

The distances between transmitter sites will depend on many factors, including the geography of the mobile services. There is a specific requirement for an upgraded radio base station at this location to allow the two companies to operate and manage a single network grid across the UK using MORAN technology, including the opportunity for future 4G service.

This single network grid will automatically increase each operator's footprint by 40%, adding competition and choice for customers in areas that previously only had one operator's coverage available and is a principal reason for the proposed upgrade.

Additionally, laying the foundations for a 4G system that provides mobile ultra broadband internet access, e.g. to laptops with USB wireless modems, to smartphones and to other mobile devices, and is desirable. 4G provides superfast mobile broadband and will provide better, faster and more reliable mobile broadband connection according to Ofcom's Chief Executive. OfCom's Chief Executive also acknowledges that down load speeds will initially be at least 5 to 7 times faster than existing 3G networks.

The National Planning Policy Framework states at paragraph 46 that local planning authorities should not question the need for the telecommunications system, which the proposed development is to support. However, for the avoidance of doubt, the proposed installation is needed for both companies, via CTIL to operate and manage a single network grid across the UK using MORAN technology.

The Government has expressed its commitment to the UK having the best superfast broadband network (i.e. those services with a headline speed of 30Mbit/s or more) by 2015. It also wants superfast broadband networks to be available to 90% of homes and businesses.

According to OfComs Communication Marketing Report 2013 it found that the proportion of homes which accesses the internet or web-based services over a mobile network increased by 8% in the last year to 50% mainly due to the increasing smartphone take-up (i.e. phones which are specifically designed for the consumption of internet-enabled services such as websites and mobile applications). At the same time the use of email, social networking sites and instant messaging services all increased. Ofcom estimates that the number of subscribers who accessed the internet from mobile phones increased by nearly 9 million in 2012.

In the first quarter of 2013, 49% of UK adults accessed the internet using a mobile phone, a 10% increase on last year. Three quarters of those aged 16-34 said they accessed the internet using a mobile. The report found that people in the UK spent an average of over one day a month using the internet over a mobile network or a fixed internet connection PC in 2012. During 2012, the average time spent using a mobile data connection increased by 8 minutes a day (6%). The report also found that an average household spend on mobile services increased by 3.4% largely as a result of the growing use of mobile data services (i.e. smartphones).

The growth in smartphone take-up has resulted in increasing use of mobile data services. The percentage of mobile users who used their handset to access emails, download applications and send and receive instant messages has at least doubled over the last two years to 36%, 29% and 26% respectively in the first quarter of 2013. It has become so popular that the number of voice calls has been overtaken by such mediums as email, texting and social networking sites. Indeed, 47% of all mobile users accessed their mobile in the first quarter of 2013, up from 28% in 2011.

Ofcom Research 2013 reported that 66% of mobile data users who access the internet do so equally inside and outside the home. The location of most mobile broadband use outside the home is when travelling (25%), at someone else's house (22%) and indoor public spaces (18%).

According to Ofcom research conducted in April 2013, 30% of smartphone users intend to upgrade to 4G at the end of their current contract. The most commonly cited reason for wanting a 4G service is speed. 73% of smartphone owners said they wanted a 4G service for quicker download speeds and 59% said they wanted 4G to enable faster streaming. The second most commonly cited reason for a 4G service was the reliability of the data service to take advantage of 'improved data coverage' and a 'more reliable data connection'.

The Ofcom Report found that it is likely that faster mobile data networks will contribute to further increases in average data consumption and 44% of smartphone users questioned by Ofcom in April 2013 said they would use their handset more if their mobile data connection was faster. The Report stated that data collected by BillMonitor, a company that aims to help subscribers to analyse their mobile bills and find suitable tariffs, showed that consumers' use of mobile data increased at an annual rate of 70%.

The current installation provides 2G only (voice) coverage to Vodafone UK Ltd customers in the area. The new equipment to be positioned on the proposed lattice mast is required due to changed radio coverage dynamics in which to provide 2G (voice), and 4G (high speed data) and the provision of enhanced 3G (data) services.

The area within which an installation needs to be established in order to meet the coverage requirement is constrained by the location and extent of the coverage provided by existing installations in the surrounding area. The proposed scheme utilises an existing established radio base station installation which will be upgraded to provide a single grid network using MORAN technology. This will enable the operators to meet their efficiency, capacity and ever increasing technical capability requirements within a single grid network.

Further detail regarding the general operation of the network can be found in the accompanying document entitled 'General Background Information for Telecommunications Development'. This information is provided to assist the local authority in understanding any technical constraints on the location of the proposed development.

6. Site Selection Process – alternative sites considered and not chosen (not generally required for **upgrades/alterations to existing sites** including redevelopment of an existing site to facilitate an upgrade or sharing with another operator)

In accordance with the licence obligations and advice in the National Planning Policy Framework and the Code of Best Practice in England the applicant's network rollout team investigated the following siting and design options using this sequential approach to site selection:

- Upgrading their own existing base stations;
- Using existing telecommunications structures belonging to another communications operator. i.e. Mast and/ or site sharing, co-location;
- Installations on existing high buildings or structures including National Grid pylons;
- Using small scale equipment; and finally
- Erecting a new ground based mast site – (1st) Camouflaging or disguising equipment. (2nd) A conventional installation e.g. a lattice mast and compound.

The applicant's site selection strategy is to keep the overall environmental impact to a minimum. Utilising existing masts is always progressed where it is technically and legally possible and where it is the local planning authority's preferred environmental solution. New sites are only developed where there are no viable or accessible alternatives or it is the local planning authority's preferred approach. The feasibility of the acquisition, build and maintenance of the site also needs to be taken into account.

In accordance with the above sequential approach, and in line with the principles of pooling the two operators existing network infrastructure to create a single network grid, the proposal is to upgrade the existing base station in this location.

Site	Site Name and address	NGR	Reason for not choosing
N/A	N/A	N/A	N/A

If no alternative site options have been investigated, please explain why:

As referred to above, the applicant has taken a sequential approach and is seeking to redevelop an existing installation to enable a single grid network using MORAN technology to service to the local surrounding area. It is considered that utilising an existing established radio base station installation is preferable to pursuing a second base station within the immediate vicinity, as it would reduce the visual impact therefore preserving the character and amenity of the area. Given the makeup of the area and the siting of existing radio base station infrastructure on site, it was established that the upgrading of facilities through the use of existing infrastructure would be the most viable solution. Based on this sequential approach no other sites have been considered.

Land Designations:

Additional relevant information (planning policy and material considerations): N/A

Siting

The site is located within Yearhaugh Forestry Reserve a managed forestry reserve. It is located just off from an access track to the east of an unclassified road. It is to the north of the settlements of East and West Woodburn and the east of the main A68. There are dispersed farmsteads to the west of the forestry reserve and the mast. The existing mast is seen in relation to the adjacent forestry planting, some of which meets and exceeds the height of the existing mast. The site is in a very rural area.

There is a specific requirement for a radio base station upgrade at this location to provide new 2G (voice) and 4G (high speed data) services, plus provision for 3G (data) for both Telefonica UK and Vodafone to improve overall capacity. The site following the proposed upgrade, will be capable of accommodating new, more advanced technologies for this cell area so that customers will be able to continue to use their smartphones and tablet computers whenever and wherever they are to assess services such as instant messaging, emailing, video calls, downstreaming data to name just a few of the benefits of the latest technologies that 3G and 4G provides.

Utilising an existing established radio base station on which to attach the new equipment will reduce the cumulative number of base stations in this area that are required and meets with the requirements for minimising the number of radio base stations as set out in NPPF.

It is likely that once built, the site will be visited infrequently for maintenance purposes only, as is currently the case. Access to the site will be by foot in which the applicant would gain access to the equipment housed within the equipment cabinets. In the event of the antennas within the mast needing to be maintained this will be achieved by siting a cherry picker with a hydraulic platform alongside the base station.

Visual appearance

The need for additional structures will be kept to a minimum through the use of the existing equipment cabinet on site within which the new equipment will be positioned. Although the height of the replacement mast has increased by an overall height of 9.5 metres in comparison to the existing column, this is essential to fit the MORAN technology into the structure, allowing both operators to utilise the same apparatus. The height is required to enable the proposed upgraded mast to operate above the adjacent trees which compromise the network signal. The overall height of the mast will increase to 27m in order to accommodate 2G, 4G and the provision for 3G technologies for both operators within a single structure. However, the operators recognise the need to minimise the visual impact of any new structure on the site. The proposal is the lowest possible height necessary in order to house the 2G, 4G and provision for 3G technologies on the same structure, thus allowing both operators to utilise the same apparatus.

The new replacement antennas, additional dishes and other equipment is required due to changed radio coverage dynamics (4G). The replacement antennas on the existing mast will appear slightly wider in diameter. If the antennas were any thinner in diameter, then the technologies would not be able to be accommodated within the same structure and an additional radio base station would be required in this rural area, which would lead to the proliferation of masts, contrary to national and local planning policy.

The requirement for new equipment for this rural area has been kept to its absolute minimum in width, height and scale.

It is considered that due to the rural location of the radio base station, the existing natural vegetation in the immediate area means that the visual impacts within the landscape will not be overly detrimental and that the benefits would significantly outweigh the costs. The mast and headframe is the minimum required to accommodate the multi-technologies for 2 no. operators compared to the existing structure, the visual impacts in this landscape are predicted to be acceptable in terms of the benefits of the proposal. It is considered that the landscape in the forestry reserve can absorb the proposal relatively

easily and at the same time will provide the much needed technological improvements for the telecommunication services. It is considered that the appearance of the mast would not seriously impact upon the visual amenity of the area, nor would it form an obtrusive feature within the landscape.

National Planning Guidance

Planning policy is provided at the national level by the National Planning Policy Framework (NPPF). It is a material consideration in planning decisions.

It is not necessary to quote extensively from this document but the following points are highlighted.

National Planning Policy Framework (March 2012)

The government's National Planning Policy Framework (NPPF) was published on 27 March 2012 and consolidates the majority of planning policy documents into a single circular (including PPG8, and PPS1). The Government's latest thinking strongly supports communications infrastructure. Paragraph 42 of the framework document sets out the objectives of the Communications Infrastructure. It states that *'advanced, high quality communications infrastructure is essential for sustainable economic growth. The development of high speed broadband technology and other communications networks also plays a vital role in enhancing the provision of local community facilities and services'*.

Paragraph 43 states that *'Local Planning Authorities should support the expansion of electronic communications networks, including telecommunications and high speed broadband'*. It goes on to acknowledge that the numbers of radio and telecommunications masts and the sites for such installations should be kept to the minimum consistent with the efficient operation of the network. The NPPF supports the use of existing masts, buildings and other structures, unless the need for a new site has been justified. It goes on to state that where new sites are required, the equipment should be sympathetically designed and camouflaged where appropriate.

NPPF paragraph 46 sets out a clear message to local planning authorities on health issues and the need for telecommunications systems. It states that *'local planning authorities must determine applications on planning grounds. They should not seek to prevent competition between different operators, question the need for the telecommunications system, or determine health safeguards if the proposal meets International Commission guidelines for public exposure'*.

Throughout the NPPF there is strong support for sustainable development which is summed up in paragraph 14 which states *'At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision taking. For decision-taking this means:*

- Approving development proposals that accord with the development plan without delay; and
- Where the development plan is absent, silent or relevant policies are out-of-date, granting planning permission unless:
 - Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
 - Specific policies in this Framework indicate development should be restricted.

Section 7 of the NPPF sets out the requirement for good design and states at paragraph 56 that *'the Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people'*. Paragraph 65 goes on to state that *'local planning authorities should not refuse planning permission for buildings or infrastructure which promote high levels of sustainability because of concerns about incompatibility with an existing townscape, if those concerns have been mitigated by good design'*.

The NPPF sets out 12 core principles which should underpin plan-making and decision-making. These principles include that every effort should be made objectively to identify and meet development needs of an area, and respond positively to wider opportunities for growth (para 17).

Code of Best Practice on Mobile Phone Network Development in England (July 2013)

The Code of Best Practice provides guidance primarily to mobile network operators, their agents and contractors and to local planning authorities in England. It supersedes the Code of Best Practice on Mobile Phone Network Development (2002).

The principal aim of this Code is to ensure that the Government's objective of supporting high quality communications infrastructure is achieved in a timely manner, but in a way that also minimises the potential impact that can be associated with such development. It provides clear and practical advice to ensure the delivery of significantly better and more effective communication and consultation between operators, local authorities and local residents.

The Code highlights that the mobile telecommunications network is a crucial piece of national infrastructure in both economic and social terms. It acknowledges that the pressure on networks to upgrade and improve networks through changes to existing sites and the development of new sites is constant. With the increasing consumer demand and the Government's ambitious aspirations it is becoming more important to improve connectivity and capacity. This is due to the ever increasing demand for data hungry applications to be available to a range of connected devices, such as smartphones and tablet computers. However, The Code notes that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which they rely.

The Code acknowledges that the operators anticipate largely using existing network infrastructure for the provision of 4G services and are similarly upgrading their 2G and 3G network infrastructure to improve capacity and coverage. However, the Code goes on to state that this does not mean that there will not be a need for new base stations. More base stations will be needed in areas where there has previously been only limited or no coverage, and where coverage and capacity needs to be enhanced in line with Government Policy and customer demand or where sites have been lost for example due to redevelopment.

Mast and site sharing continues to be supported within both Government policy and the Code of Best Practice. The Code acknowledges that shared sites will tend to be slightly bigger, but fewer sites will be needed overall to improve coverage and capacity. The Code acknowledges that sharing of sites is now the norm, and network operators now share much of their network infrastructure via joint venture commercial arrangements.

The Code provides guidance on siting and design at Appendix B and continues to acknowledge that camouflaging or disguising equipment is considered materially appropriate with more modern masts frequently able to blend into their surroundings far more effectively than some of the older masts. In reducing the environmental and visual impact of the installation the Code of Best Practice promotes the use of simple and uncomplicated designs. *"Masts which have complex designs are more likely to dominate and be in discord with the landscape and have adverse visual impacts."* In this regard, the proposed replacement slim-line column with hidden antennas will ensure that the environmental and visual impact of the equipment remains low as the column itself will appear similar to other vertical structures within the immediate area minimising the environmental and visual impact of the equipment.

Concerning the erection of new ground based masts; The Code provides examples of where the environmental and visual impact of the mast can be greatly reduced.

- *Placing the mast near similar structures. For example, industrial and commercial premises, road signs and lamp posts;*
- *Using simple and unfussy designs. Masts which have complex designs are more likely to dominate and be in discord with the landscape and have adverse visual impacts; and*

- *Appropriate colouring.*

Local Policy

Northumberland Consolidated Planning Policy Framework (April 2014) contains the following policy:

Policy CS14

The development of new telecommunications equipment will be permitted provided that:

- It is sited and designed to minimise its impact on the landscape and amenity of adjoining uses, land and the environment;
- It is not located in the Coastal Zone, in which case Policy C21 applies; and
- It accords with Policies elsewhere in the Plan, subject to the operational requirements of the telecommunications industry in terms of landform.

It indicates that the use of an existing mast or tower, or other building where it will not adversely affect the external appearance of the building, will be encouraged.

In this case, the upgrade of an existing site is possible, avoiding the need for an additional site in the local area which can be achieved with minimal additional visual impact. It is acknowledged that there is the need for an increase in the height of the overall mast but it is considered that the proposed upgraded installation represents an appropriate siting and design solution for the locality and is considered to be the least visually intrusive, technically suitable, option available.

The modifications to the existing telecommunications site fully complies with CS14 of Local Plan and the NPPF. Government guidance states that in order to limit visual intrusion the number of radio and telecommunication masts and the sites should be kept to a minimum consistent with the efficient operation of the network. Existing masts, buildings and other structures should be used unless the need of a new site has been justified [NPPF para 43].

The application site is an established telecommunications radio base station. Given that the proposal is to make improvements to the existing site to make the site capable of allowing both operators to operate from a single telecommunications network grid, then this is in accordance with the above policies of the Local Plan, NPPF and The Code of Best Practice. This offers the best environmental solution, limiting the amount of new sites required whilst continuing to allow two operators to utilise the same site, limiting additional visual intrusion in the area.

The principle of a telecommunications base station installation in this location has already been accepted by the Council. The proposed upgrade to the existing site is sequentially the most preferable option. The operators are looking to upgrade their existing installation to primarily enable two companies to operate and manage a single network grid across the UK, using modern MORAN technology. The design of the replacement headframe will be as similar as possible to the existing structure. It should be noted that the overall height will not increase as a result of this proposal.

The Government fully supports high quality communications infrastructure. The NPPF states at paragraph 43 that local planning authorities should support the expansion of electronic communications networks, including telecommunications and high speed broadband. It acknowledges that high quality communications infrastructure is essential for sustainable economic growth. The NPPF also highlights that the development of high speed broadband technology also plays a vital role in enhancing the provision of local community facilities and services.

The design chosen is the most sensitive design available to the operators' that will allow two telecommunication operators' to utilise the same single site and enable the latest multiple technologies to be provided to the cell area. It is also located where there currently is an established telecommunications installation in the same location as the existing site.

It is the minimalist solution available to provide the required upgrade and the replacement equipment will be of similar materials to those already in situ. Without the amendments MORAN technologies for both operators on a single site would not be able to be provided. It is therefore likely that the operators would need to install an additional radio base station elsewhere within the cell area to meet their technological requirements. This would lead to the proliferation of masts contrary to local and national planning guidance. Therefore, the proposal fully complies with Policy CS14.

The NPPF strongly supports sustainable development. Mobile communication plays a significant role in sustainable development. Being able to access the internet via a mobile device allows people to access a wide range of central and local government services, buy groceries, manage finances, apply for jobs/university, and carry out school projects, send emails, download applications, send and receive instant messages, streaming and downloading data to name just a few of the benefits of being able to use an internet enabled handheld device. It also allows people to work from home or on the move without needing to return to the office. This reduces travel time, carbon emissions and increases the speed in which information is processed/shared. The proposals therefore comply with NPPF to minimise the effects of climate change reducing the need to travel and therefore the carbon footprint.

As the 4G network is rolled out across the country, demand for the superfast high speed data capture will increase significantly and as part of the operators' license agreement to provide a quality service to their customers they are obliged to upgrade their systems to ensure that their customers have access to the latest technologies. It is also in line with the Government's aspirations for the UK to have the best superfast broadband and which fully supports the expansion of electronic communications networks, including telecommunications networks, including telecommunications and high speed broadband.

The improvements to the existing structure will enable the operator both operators to provide a high quality service to their customers and access to the latest technologies whenever and wherever they are. An installation located outside this area would not allow the operator to provide their desired level of multi technologies coverage and capacity.

Health and Safety

The proposed installation conforms to current government planning guidelines regarding potential health effects arising from telecommunications development. The operator has attached a declaration that the site conforms to ICNIRP guidance. This is in full accordance with NPPF.

Recent court cases have confirmed that the *public perception* of health risks can be a material consideration within the land-use planning system. The weight to be attached to this issue has to be determined accordingly in each case by the decision maker. It has been generally held, and widely established at planning appeal, that health concerns are not a sufficient basis alone for withholding planning permission providing it has been demonstrated that the proposed installation will comply with the ICNIRP guidelines.

The publication of the National Planning Policy Framework continues to highlight the Governments view that the planning system is not the appropriate mechanism for determining health safeguards. It sends a clear message to local planning authorities stating that they must '*determine applications on planning grounds. They should not seek to prevent competition between different operators, question the need for the telecommunications system, or determine health safeguards if the proposal meets International Commission guidelines for public exposure*'. This is reiterated in the Code of Best Practice.

In this instance, Vodafone believes that it is not necessary to consider health effects further, as recommended by NPPF. The operator is committed to ensuring that all new and existing installations are ICNIRP compliant, and consequently it is considered that there is no basis for this application to be refused on health and safety grounds or for reasons relating to public concerns about health and

safety. ICNIRP compliance certificates are enclosed for the operator with this application. If required, additional information regarding the operation of mobile telephone base stations and health and safety considerations can be provided.

Summary

To summarise the case in favour of the proposals the following points are of relevance:

- With specific regard to telecommunications development, the proposal accords fully with Policies CS14 of the Local Plan, the NPPF and the Code of Best Practice;
- Site selection was progressed in accordance with the applicants licence obligations, advice in NPPF and the Code of Best Practice and represents the least environmentally intrusive, technically suitable, available option;
- The significance of the proposal in the development of two competing companies to operate and manage a single network grid using modern MORAN technologies across the UK is a material consideration. By pooling the operators' basic network infrastructure, this will:
 - Automatically increase each operator's footprint by 40%, adding competition and choice for customers in areas that previously only had one operator's coverage available.
 - Close the digital divide between rural and urban areas targeting 98% indoor population coverage across 2G and 3G by 2015.
 - Lay the foundations for two competing 4G networks to deliver the capability for a nationwide 4G service faster than could be achieved independently.
- With the advent of smartphones and tablet computers the demand for indoor 3G coverage and high speed data capture is increasing rapidly and the operators are obliged to meet this demand and provide a high quality service in line with the NPPF guidance.
- An existing structure is being upgraded by the applicant with minimal alterations in order to allow the operators to manage a single network grid and which fully accords with NPPF guidelines;
- The operator's site selection strategy is to keep the overall environmental impact to a minimum through utilising the same sites wherever possible. The operators are utilising the same site where it is technically and legally possible and is the sequentially preferable environmental solution;
- The proposal would not constitute a proliferation of telecommunications installations as advocated by NPPF.

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