

Our Ref: YO302

Date: 20th August 2018

**FAO: Mike Thomas  
Bay Ness Farm  
Smay Lane  
Robin Hoods Bay  
Whitby  
North Yorkshire  
YO22 4PJ**

Dear Mr Thomas,

**Arqiva Ltd: Installation of Electronic Communications Apparatus at Bay Ness Farm, Smay Lane, Robins Hood Bay, Whitby, North Yorkshire, YO22 4PJ**

Please find enclosed a Notice informing you that Arqiva Ltd, will be submitting an application to **North York Moors National Park** for a prior approval determination for the installation of electronic communications apparatus at this site.

This Notice is provided in accordance with Paragraph A.3(1) of Part 16 of Schedule 2 to the Town and Country Planning (General Permitted Development) (England) Order 2015, as amended which requires landowners to be informed of the submission of the application.

You will see from the Notice that you may make representations about the application direct to the Local Planning Authority should you wish to do so.

Yours faithfully,

Damian Hosker BA (Hons) MA MRTPI

**On behalf of Arqiva Ltd**



## Developer's Notice

Proposed development at: Bay Ness Farm  
Smay Lane  
Robin Hoods Bay  
Whitby  
North Yorkshire  
YO22 4PJ

National Grid Reference: Easting 495307 Northing 506249

I hereby give notice, in accordance with paragraph A.3(1) of Part 16 of Schedule 2 to the Town and Country Planning (General Permitted Development) (England) Order 2015 as amended, that **WHP on behalf of Arqiva Ltd, Crawley Court, Winchester, Hampshire SO21 2QA**, will be applying to North York Moors National Park for a determination as to whether the prior approval of the authority will be required for the siting and appearance of the following permitted development:

PROPOSED ARQIVA SMART METERING 1No. OMNI AT 11.15m MOUNTED ON PROPOSED STREETWORKS POLE.

PROPOSED ARQIVA SMART METERING 1No. GPS ANTENNA AT 10.3m MOUNTED ON PROPOSED STREETWORKS POLE.

PROPOSED ARQIVA SMART METERING 1No. 3G OMNI ANTENNA AT 9.6m MOUNTED ON PROPOSED STREETWORKS POLE.

PROPOSED ARQIVA SMART METERING EQUIPMENT ENCLOSURE PLINTH MOUNTED ON A NEW CONCRETE FOUNDATION.

PROPOSED ARQIVA METER PILLAR PLINTH MOUNTED ON A NEW CONCRETE FOUNDATION.

The application will be made to:

North York Moors National Park Authority  
The Old Vicarage  
Bondgate  
Helmsley  
York  
North Yorkshire  
YO62 5BP



The local planning authority has 56 days from the date it receives the application to consider whether prior approval will be required for the siting and appearance of the development proposed and, if so, to grant or refuse such approval and to communicate its decision to the

applicant. The application will be made available for public inspection at the offices of the local planning authority during usual office hours.

Any person who wishes to make representations about the siting and appearance of the proposed development may do so in writing to the local planning authority at the above address. A period of at least 14 days, from the date of this notice, will be allowed for any such representations to be received by the Local Planning Authority.

Name: Damian Hosker BA (Hons) MA MRTPI

Signed: N. Damian Hosker

On Behalf of: Arqiva Limited

Date: 18/08/2018

**DECLARATION OF CONFORMITY WITH  
PUBLIC RF EXPOSURE GUIDELINES  
(FORMERLY KNOWN AS “ICNIRP DECLARATION”)**

Arqiva  
Crawley Court  
Winchester  
Hampshire  
SO21 2QA

Declares on behalf of Arqiva (Smart Metering) that the proposed equipment and installation as detailed in the attached planning / GPDO application, and any existing equipment at:

GF AT BAYNESS FARM  
ROBINS HOOD BAY  
NORTH YORKSHIRE  
YO22 4PJ

Site ID: 305739  
Nominal Site ID: YO302

Plan View Drawing Reference: 305739-01-100-MD001  
Elevation View Drawing Reference: 305739-01-150-MD001

is designed to be in full compliance with the requirements of the radio frequency (RF) public exposure guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP), and the EU Council recommendation of 12 July 1999\* “on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)” in all areas legitimately accessible to the public.

\*Reference: 1999/519/EC

Date: 17th August 2018

Signed:

Name: Andrew Cottam

Position: Project Engineer





**STATEMENT IN SUPPORT  
OF  
APPLICATION FOR PLANNING PERMISSION/PRIOR APPROVAL  
INCORPORATING THE DESIGN AND ACCESS STATEMENT**

**21st August 2018**

**Arqiva**

**The Ponderosa  
Scotland Lane  
Horsforth  
Leeds  
West Yorkshire  
LS18 5SF**

**Ref: YO302**

**NYMNDP  
24 AUG 2018**

## EXECUTIVE SUMMARY

### **The Proposed Development**

This application is for the installation of electronic communications apparatus required for the Government's project to develop new Smart Metering network.

Arqiva, an Electronic Communications Code Network Operator, has been appointed by the Department of Energy & Climate Change (DECC) as its implementation partner to develop the Smart Meter infrastructure network in the north of England and Scotland.

### **The Benefits of the Smart Metering Network**

The Government is implementing a programme to roll out, between 2014 and 2020, smart electricity and gas meters to homes and small businesses across Great Britain. Smart Meters are the next generation of gas and electricity meters and this part of the programme is being implemented by the gas and electricity customer suppliers. The Smart Meters will offer a range of intelligent functions and provide consumers with more accurate information, bringing an end to estimated billing. Consumers will have near-real time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions.

A key feature of Smart Meters is that they are continuously connected to data centres to provide and manage the constant flow of data and functionality. Smart Meters must therefore be linked to an electronic communications network and as indicated above, Arqiva has been instructed by Government to provide a dedicated Smart Metering Network (SMN) for this purpose.

The smart meter initiative is a key part of the Government's programme to cut greenhouse gas emissions, decarbonise the economy and support the creation of new green jobs and technologies. Indeed, the smart metering programme is one of the top priorities identified in the National Infrastructure Delivery Plan 2016 - 2021.

In providing these benefits the SMN of which this development will form part is one of the Governments key initiatives to help achieve the difficult goals of sustainable

development. This places the development squarely in accordance with the statutory duty placed upon local planning authorities and accentuated by the presumption in favour of sustainable development within the National Planning Policy Framework (NPPF).

### **Technical and Operational Constraints**

The SMN, like all electronic communications networks, is to be supported by an infrastructure of operational sites with the required antennas and other apparatus needed to provide radio coverage to the local area. In that sense, they have similarities with cellular networks, with the Smart Meters, being the devices that must connect and communicate with the network antennas, rather than mobile devices.

The SMN sites must therefore be located in proximity to the premises that will be served and must be able to communicate with meters that are often located within the heart of a property, for example, in an under stairs cupboard.

Consistent with planning policy, the main sites that form the SMN have been largely planned around sharing or using existing communication sites, buildings and structures and where this has not been possible, new ground-based masts. These main installations provide the main umbrella of coverage to larger geographical areas and premises within those areas.

However, there are still smaller settlements, peripheral areas and more remote locations that cannot be covered by these sites due to coverage constraints, often related to distance, topography or other environmental related factors. Hence, in order to provide more localised coverage to these areas, a secondary layer of smaller sites, known as micro sites are required and these are generally physically smaller. The application is in relation to a site required for this secondary layer as explained in more detail below.

### **Site Selection**

The micro and repeater sites are required to provide localised coverage over very specific areas and so the siting parameters for coverage reasons are narrow.

The sites must also satisfy a range of operational criteria, such as good fibre connectivity, an existing power supply suitably high and resilient for an electronic communications network, a reasonable level of security and with reasonable vehicular access for ongoing maintenance. In addition, the site must be capable of being constructed without undue constraints and avoiding undue environmental disturbance, that for example, might be associated with creating new access tracks and supplying new power runs above or below ground.

In assessing these various requirements and looking to find an appropriate balance between operational and environmental factors, a sequential approach to site selection has been adopted. Site sharing, utilisation of existing buildings and structures have been explored to best meet the operational need whilst minimising environmental impact. This assessment has shown that there are no options that exist.

Thus, in this case, a smart metering radio mast located adjacent to an agricultural storage building at Bay Ness Farm is needed to provide coverage to the settlement of Robin Hoods Bay.

### **Pre-Application Consultation**

Information on Arqiva's planned SMN was provided to the Council on 18 December 2013. Further pre-application consultation in relation to the application site was undertaken with your Authority and Ward Councillors (Jane Mortimer) and Flyingdales Parish Council. At the time of submission there has been no response to this pre-application consultation.

### **Compliance with Planning Policy and other Material Planning Considerations**

Policy at national level is set out in the NPPF. The NPPF views high quality communications infrastructure and systems as essential for achieving sustainable development objectives. This policy has especial emphasis for the SMN, which is a crucial part of a programme required by Government to help reduce power usage and lower greenhouse emissions across Great Britain.



At local level, relevant policy within the North York Moors National Park Authority Local Development Framework – Core Strategy and Development Policies (November 2008) has been taken into account. A sensitive approach has been adopted to ensure an appropriate balance has been struck between operational and environmental considerations to result in a development that is acceptable in all respects. In addition, the fact that the development is part of a programme being specifically required by Government in the wider public interest must carry great weight as a material consideration.

The site chosen designated as being within the North York Moors National Park and the North Yorkshire & Cleveland Heritage Coast. The land designation is considered to be a material consideration and North York Moors Core Policy A: Delivering National Park Purposes; Development Policy 3 - Design and Development Policy 25 - Telecommunications apply. Although this framework might constrain conventional forms of development, it well understood that existing communities must be served by the infrastructure and utilities essential to a modern society. The sensitive and balanced approach towards siting does however mean that all reasonable steps have been taken to minimise any perceived visual and environmental impact, whilst still providing the necessary radio coverage for the SMN and satisfying the other operational criteria.

### **ICNIRP Compliance**

The proposed antennas comply with all relevant health and safety requirements, in accordance with ICNIRP guidelines. A certificate of compliance has been provided with this application.

### **Servicing and Maintenance**

Periodic access will be required to the site for maintenance and servicing visits. This will be restricted to authorised personnel only, and therefore the proposal does not give rise to any issues associated with public access.

In conclusion, the proposed development has been sited and designed with reference to pre-application consultation in order to locate the development as sensitively as

practicable. Specific consideration has been given to technical requirements and national and local planning policy. The proposal is part of an important Government initiative and is supported by both local and national planning policy. Having regard to all the relevant material considerations the proposal merits support and the application should be permitted, in accordance with the presumption in favour of sustainable development.

## 1. INTRODUCTION

- 1.1 This statement is submitted in support of the application made in respect of development proposed adjacent to the side of an agricultural storage building at Bay Ness Farm, Smay Lane, Robin Hoods Bay, Whitby, North Yorkshire, YO22 4PJ as part of a new Smart Metering Network (SMN) that is required by Government.
- 1.2 As shown in detail in the drawings submitted, the development proposes the installation of a very slim-line radio mast, 10 metres high (antenna centre-line top height 11.15m), with a small and unobtrusive antenna configuration at the top, which has been well designed to blend into the existing street scene. The mast, therefore, is similar in appearance to other forms of street furniture that are typically located within many small rural and semi-rural villages such as street lighting columns, although in this case a need to be taller to provide the necessary radio coverage to premises within the settlement. A small equipment cabinet is also proposed at ground level and again, will not be dissimilar to similar utility street apparatus such as those used by BT to provide broadband connectivity.
- 1.3 Arqiva is an Electronic Communications Code Operator and so benefits from the right set out in Paragraph 9 of the Electronic Communications Code to carry out street works. The Electronic Communications Code is found at Schedule 2 of the Telecommunications Act 1984, as amended. Arqiva also benefits from the permitted development rights set out under Part 16 of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015, as amended. Hence in this case, the application is made under the Prior Approval procedures set out under Conditions A.2 and A.3 of Part 16.
- 1.4 In this statement, which incorporates the design and access statement, we go on to highlight the role of the development proposed, within the context of the SMN required by Government. We explain the benefits associated with the SMN, to explain the particular need in this case and to demonstrate compliance with

planning policy. We also provide information on health and safety and related issues by way of further reassurance.



## 2. THE PURPOSE AND BENEFITS OF THE SMART METER NETWORK

- 2.1 The proposed development forms part of the SMN that Arqiva has been appointed by the Department of Energy & Climate Change (DECC) to implement in the north of England and Scotland. Arqiva has been selected by DECC because it is an existing electronic communications code network operator, already responsible for much of the UK's critical communications, for example, the terrestrial television broadcast network and much of the radio broadcast network. Smart Metering is a Government programme to roll out, between 2014 and 2020, smart electricity and gas meters to homes and small businesses across Great Britain. The smart meter initiative is a key part of the Government's programme to cut greenhouse gas emissions, decarbonise the economy and support the creation of new green jobs and technologies.
- 2.2 A key feature of Smart Meters is that they are continuously connected to data centres to provide and manage the constant flow of data and functionality. Smart Meters must therefore be linked to an electronic communications network. The actual Smart Meters are being installed in premises by the gas and electricity utilities who supply the customers. The Smart Meters must therefore be supported by a new SMN and DECC has awarded the contract to implement this across Great Britain to Arqiva and Telefonica. Arqiva has been selected by DECC to be its implementation partner responsible for deploying and managing the SMN in Scotland and northern England, whilst Telefonica will provide the network to the remainder of Great Britain.
- 2.3 This new SMN will be a 'Wide Area Network' and is a key project in the UK's National Infrastructure Delivery Plan 2016 – 2021. When complete, it will form part of the UK's Critical National Infrastructure. Its deployment and timely delivery is particularly important to achieving a sustainable economy and meeting key Government priorities enshrined in the Climate Change Act 2008, and thereby support the transformation to a low carbon economy.

2.4 In due course, the SMN will also be available to water utilities and in similar fashion, consumers will be better able to understand and make informed choices about their use of this natural resource to help reduce consumption and waste.

2.5 The proposed development and the wider SMN will, therefore, make a significant contribution towards sustainable development objectives which will help the UK Government to meet its target of reducing emissions by at least 80% on 1990 levels by 2050 and now set down within the UK Carbon Plan. This is relevant to the statutory duty already placed upon local planning authorities under Section 39 of the Planning and Compulsory Purchase Act 2004 and now accentuated by the presumption in favour of sustainable development within the National Planning Policy Framework (NPPF). More specifically, it will help to deliver the aspirations set out in Sections 5 and 10 of the NPPF.

2.6 Having regard to the Government's three key dimensions for sustainable development within the NPPF, smart metering will in particular assist in the following ways:

- **An economic role** – smart metering communications will help businesses to be energy conscious, smarter and invest in more energy efficient infrastructure to reduce longer term running costs. Consequential spin offs will, among many, be the creation of new green jobs and technologies, modern and cleaner industries and help stimulate retail sales in more efficient appliances.
- **A social role** - modern smart metering communications will allow consumers to benefit from real time information on their energy consumption, to help them control energy use, save money and reduce emissions. With greater visibility and understanding of their energy consumption, consumers will be able to make more informed choices about which appliances to use and when. For example, a consumer seeing the power consumption of a tumble dryer might be encouraged to

use a washing line instead or perhaps to avoid operating it during peak periods of demand when pricing is higher.

- **An environmental role** – smart metering communications will help to reduce energy consumption at homes and premises and allow smarter working practices such as better energy management within larger businesses and incorporation of new efficient infrastructure into new developments. In this way modern smart metering communications will help ensure the prudent use of natural resources, alleviate energy waste, reduce carbon footprints and help the UK Government meet its energy emissions set within the UK Carbon Plan.

2.7 However, in order to make this important contribution to sustainable development objectives, the SMN has to be developed first and like all electronic communications networks, will need to be supported by an infrastructure of operational sites. This is no different than railway services, for example, being reliant on the associated infrastructure of lines and stations. In the next section, the particular network requirement from which this application stems will be explained.

### **3. THE REQUIREMENT**

- 3.1 Arqiva owns and operates the terrestrial radio and television broadcast networks. The company also owns most of the tower portfolio originally developed by T-Mobile (now part of Everything Everywhere) and has rights and manage other masts, towers and rooftops, developed or otherwise suitable for use for electronic communications. In total, Arqiva has access to over 16,000 sites around the UK, which is considerably in excess of the numbers available to any other electronic communications operator in the UK. Arqiva is also licensed to use the 412-414MHz spectrum that will be used as part of the Smart Meter network.
- 3.2 The SMN has been largely based around the utilisation of these existing and other communication sites, buildings and structures and where this has not been possible, new ground-based masts. This has allowed Arqiva to minimise the potential visual impact associated with the deployment of the new smart metering radio network, consistent with longstanding statutory and government policy requirements.
- 3.3 These main installations, known as 'macrocell' sites, provide the main umbrella of coverage to larger geographical areas and premises within those areas. However, there are still smaller settlements, peripheral areas and more remote locations that cannot be met by these main installations due to coverage constraints, often related to distance, topography or other environmental related factors. Hence, in order to provide more localised coverage to these areas, a secondary layer of smaller sites, known as micro sites are required and these are generally physically smaller. The application is in relation to a site required for this secondary layer as explained in more detail below.

#### **Site Selection**

- 3.4 The micro and repeater sites are required to provide localised indoor coverage over very specific areas and so the siting parameters for coverage reasons are narrow.



- 3.5 The sites must also satisfy a range of operational criteria, such as good fibre connectivity, an existing power supply suitably high and resilient for an electronic communications network, a reasonable level of security, vehicular or pedestrian access for ongoing maintenance and security of tenure for the life of the SMN contract with DECC. In addition, the site must be capable of being constructed without undue constraints and avoiding undue environmental disturbance, that for example, might be associated with creating new access tracks and supplying new power runs above or below ground.
- 3.6 In assessing these various requirements and looking to find an appropriate balance between operational and environmental factors, a sequential approach to site selection has been adopted. Site sharing, utilisation of existing buildings and structures have been explored to best meet the operational need whilst minimising environmental impact.
- 3.7 The following sites were investigated as possible opportunities for meeting the specific localised coverage needs to the settlement but were found to be either unsuitable and/or unavailable or comparably no better than the chosen site.

<b>Site Name and address</b>	<b>National Grid Reference</b>	<b>Reason for not choosing</b>
Greenfield Monopole at decommissioned BT Exchange	E: 494860, N: 505610	The historic BT Exchange is now in private hands and has transferred into a curtilage supporting property. This option was therefore considered not suitable for housing SMN equipment.
Existing 02 site (Barn at the intersection of High Lane and Smay Lane)	E: 494960, N: 506206	This option was discounted due to the asbestos cladding on the building and the risk of over stressing the structure by supporting further equipment.
Streetworks monopole at land off Sled Gates	E: 493818, N: 504737	This option was discounted as it was felt that a streetworks installation on the verge at this location would be considerably more visually intrusive within the sensitive National Park setting than the site that has been selected.
Streetworks monopole at land off B1447 Raw Pastures Bank	E: 494419, N: 505821	This option was discounted as it was felt that a streetworks installation on the verge

		at this location would be considerably more visually intrusive within the sensitive National Park setting than the site that has been selected.
Streetworks monopole at land off B1447 opposite Mount Pleasant	E: 495083, N: 505514	This is a prominent location in the heart of the village and was therefore not expected to receive support from the National Park Authority.
Rooftop Antenna at The Grosvenor Hotel	E: 495073 N: 505446	The building is in a dip and too low to give coverage to the wider area.
Rooftop Antenna at St Stephens Church	E: 494865 N: 505290	The roof of the church does not lend itself to the installation of telecommunications equipment

3.8 The proposed installation at Robins Hood Bay will be well located and sufficiently close to the premises that the SMN will serve, particularly as the mast will operate as a communications hub, both transmitting radio signals but also with the need to collect data from smart meters installed within premises. The proposed development at the site seeks to ensure the height and mass of the design is as sympathetic to its surrounds, being as reduced in height and mass as technically possible, in a design that seeks to maintain and preserve the locations character yet delivering the level of service needed in this location. As such it is considered the proposed development would accord with the principles of the Development Plan policies.

3.9 To help illustrate this in the context of this application, a coverage plot is provided. This tends to exaggerate true levels of coverage on the ground, because the modelling only takes into broad account general topography and manmade features. However, they are a useful tool for explaining how the new installation will fit into the SMN planned and being implemented in the wider area.

3.10 Our conclusion is that the best balance between environmental and operational considerations is provided by using a specially designed structure at the application site, sufficiently close to / set amongst the properties that need to be served. This is the reason for the application before you.

## **4. COMPLIANCE WITH PLANNING POLICY**

4.1 The relevant planning policy framework that has been taken into account and in part already alluded to is found principally within:

- The Development Plan
- National Planning Policy Framework (NPPF)
- The Code of Best Practice on Mobile Network Development in England

4.2 These documents provide the overall policy background for electronic communications development, site specific policies and the key considerations relevant to the siting and design of appropriate electronic communications development. A further major consideration is that the SMN of which the proposed development will form part is a Government initiative based wholly upon the drive to reduce power consumption and green- house emissions and so support sustainable objectives. This initiative is therefore rooted in the same principles that now run through every seam of national and local policy.

### **The National Planning Policy Context**

4.3 The general policy context can be summarised as follows:

- Government policy within the NPPF is to support high quality communications infrastructure and systems – this is especially relevant to smart metering, which is a Government initiative
- Government policy is to keep the inevitable environmental impact associated with electronic communications development to a minimum
- The best way to minimise environmental impact is to avoid the unnecessary proliferation of new radio masts and sites
- The starting point for planning new networks or the expansion of existing networks is therefore to use existing electronic communications sites

- Where new installations are required, as in this case, operators should look to develop well designed structures, such as those designed to blend in with the street scene or local setting

4.4 The NPPF as a whole is aimed at encouraging a more positive approach to town planning. While the NPPF builds environmental protection into the definition of sustainable development, there is also a very clear emphasis that local planning authorities should be looking for ways to help development come forward and not reject applications simply on environmental grounds. The NPPF recognises that this is especially relevant where a development might have other significantly important benefits such as being essential to meet, for example, new nationally important infrastructure such as the SMN.

4.5 The importance of the proposed development as part of the SMN is clearly an important material planning consideration as it directly supports sustainability and is also precisely the type of new digital infrastructure that the NPPF is seeking to support.

4.6 The development proposed is comparatively small scale, well sited and well designed and so should be acceptable in every respect. However, for completeness we still highlight some of the key points within the NPPF as they help demonstrate why the application should be permitted:

a. Paragraph 14 advises that authorities should:

- positively seek opportunities to meet the development needs of their area [as part of plan making];
- meet objectively assessed needs unless the adverse effects would “*significantly and demonstrably outweigh the benefits*”;

b. Paragraph 17 advises that planning should “*proactively drive and support sustainable development to deliver the homes, businesses and industrial units, **infrastructure** and thriving local places that the country needs*” [our emphasis];



c. Paragraph 187, on "decision-taking" states that authorities should *"look for solutions rather than problems, and decision-takers at every level should seek to approve applications for sustainable development where possible"*.

4.7 Paragraph 14 of the NPPF further states that the presumption in favour of sustainable development lies at the heart of the planning system and, in respect of decision-taking, this means that both the North York Moors National Park Authority Local Development Framework – Core Strategy and Development Policies (November 2008) and the NPPF are relevant development proposals that accord with the provisions of the Development Plan should be approved without delay. In respect of this guidance, the following sections of this statement demonstrate that the proposed development accords fully with all relevant Development Plan and NPPF policies and, therefore, permission should be granted for the development.

#### **Section 5 - Supporting Advanced Communications Infrastructure of the NPPF**

4.8 The proposal is supported by, and accords with, the guidance in Section 5 of the NPPF, which provides further guidance on the Government's objective of providing high quality communications networks in England.

4.9 The NPPF clearly acknowledges the benefits of modern electronic communications and seeks to encourage such development as being essential due to their role in supporting a modern economy, contributing to sustainable objectives, and enhancing local community access to a range of goods and services. Local planning authorities are advised to respond positively to proposals for electronic communications development and this has to include an understanding of the associated special problems and technical needs of developing communications networks such as the Smart Meter network.

#### **Section 7 – Requiring Good Design of the NPPF**

4.10 Government places great importance on the design of the built environment and paragraph 56 of the NPPF states that this is an integral objective of achieving

sustainable development. The careful approach taken to the design and siting of the proposed development complies fully with this general policy objective.

- 4.11 More specifically, the proposal is supported by the guidance in paragraph 65 of the NPPF, which states 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 (unless the concern relates to a designated heritage asset and the impact would cause material harm to the asset or its setting which is not outweighed by the proposal's economic, social and environmental benefits).'*

- 4.12 *In respect of this guidance, all reasonable steps have been taken through careful siting and design to minimise the visual impact of the development, so far as the technical and operational constraints allow. The proposal is an acceptable design solution that will not have any material impact on a designated heritage asset.*

### **Site Specific Policies**

- 4.13 Section 11 'Conserving and enhancing the natural environment' of the NPPF sets out the Government's planning policies for the protection of a range of landscapes and habitats. Paragraph 115 of the NPPF requires that great weight should be given to the objective conserving landscape and scenic beauty in National Parks as one of the three specified areas that enjoy the highest level of landscape protection in England. Similar guidance is provided in Development Plan Policy 25 – Telecommunications.
- 4.14 It is for this reason that paragraph 116 of the Framework advises that planning permission for major developments in an AONB/National Park should be refused except in exceptional circumstances where it can be demonstrated that they are

in the wider public interest. In considering this guidance, it should be noted that electronic communications installations, especially of the type proposed are relatively small-scale engineering operations and, therefore, cannot reasonably be considered to be major developments.

4.15 Notwithstanding this point, the proposed development has wider public benefits and it does not offend any of the three criteria listed in paragraph 116:

- It forms part of the SMN, a nationally important infrastructure project that forms part of the UK's National Infrastructure Plan. As explained in the Site Selection section of this statement the application site has been properly chosen having regard to the special technical and operational factors as well as environmental and town planning considerations;
- In this case, the required coverage area is a localised part of the National Park and so must be sited within it, as is usual with all other infrastructure necessary to serve the local population;
- All reasonable steps have been taken, through careful siting and design, to avoid any material or widespread visual impact, having regard to technical and operational factors.

4.16 The North York Moors National Park Authority has a specific telecommunications policy - Policy 25 (North York Moors Local Plan (2003) North York Moors National Park Authority Local Development Framework - Core Strategy and Development Policies (November 2008)) relating to electronic communications.

Development Policy 25 states:

The provision of infrastructure for telecommunications and information technology will be supported where it is of a scale and design appropriate to the National Park and helps meet the needs of local communities. Proposals for the erection of telecommunications masts and equipment and any associated development will be permitted where:

- 1 There are no suitable alternative means of provision.
- 2 There is no unacceptable adverse visual impact upon the character of the locality and the wider landscape.
- 3 The siting of the installation makes use of the least environmentally intrusive option available.
- 4 The proposal is part of a co-ordinated, long term strategy for the provision of telecommunications technology.
- 5 Provision is made for the removal of the equipment when it is redundant.

The proposed design of the installation at the site is required to deliver the requisite level of electronic communication service yet would be seen in the context of a commercial farm setting and seeks to minimise its visual impact in this location. The change will not appear as incongruous and would assimilate with its surrounds and would not appear out of context in this location, so according with wider Development Plan policy.

As such it is considered the proposed development would accord with the principles of the Development Plan policies.

- 4.14 In summary, the sensitive way the development proposed has been conceived and brought forward accords with best practice and forms part of a national important infrastructure project to provide smart metering services to the local area. It accords with the key policy objectives at national level, which are reflected in the relevant policies at local level. The development proposed is, therefore, acceptable in principle and also accords with the more detailed guidance expressed in local policy.

## 5. DESIGN CONSIDERATIONS

- 5.1 The development proposed is exempt from the requirement to provide a design and access statement under Article 9 of The Town and Country Planning (Development Management Procedure) (England) Order 2015. However to assist your determination this section provides a description of the process adopted in the design of the proposals and explains the access considerations. The significant contribution such development makes towards sustainable development objectives have already been outlined earlier.

### Physical Context

- 5.2 The proposed site is situated adjacent to the side wall of a large barn building within a commercial agricultural setting and on the approach to a campsite within the grounds of the farm. The proposed installation is an ultra slim line streetworks style pole of 10m in height supporting 3 no. small scale antennas above, the largest of which has a centre line height of 11.15m.

The site is well screened having been set against a backdrop of an agricultural building and a bank of mature trees on the eastern and northern side of the building. The roofline of the adjacent building will screen views of the lower elements of the pole and the associated equipment enclosure.

The selection of a site adjacent to a farm building on the outskirts of the settlement area will allow the facility to provide the necessary coverage whilst minimising visual intrusion for residential receptors. The site also benefits from direct access from the local road and a dedicated on-site off-street parking area.

The visual impact has been further reduced by ensuring that the height of the installation has been kept to an absolute minimum and specifying the narrowest available profile of pole. It is also worth stating that the ancillary equipment enclosure and meter pillar are of very small proportions, being significantly smaller than the equipment cabinets found within the street environment and have been mounted out of sight on the side of the building.

## **Amount, Design, Layout and Scale of the Development**

- 5.3 The scale, layout and design of the development has been guided by the special technical and operational factors affecting the need to provide an acceptable level of coverage to the local area, having regard to the need to minimise visual impact, which have been explained in the previous sections of this statement.
- 5.4 For example, the height of the mast, the numbers of antennas and their size, is the minimum amount of development required to provide coverage for the smart meter network. The mast, a very simple, slimline pole design supporting three antennas, has been chosen as this is of similar appearance to other types of man-made vertical structures such as streetlights, that are a common feature of townscapes and landscapes across the UK.
- 5.5 The same design considerations apply to the equipment cabinet, which is of similar size and design to other types of roadside cabinets commonly found in urban and rural areas. The location of the equipment cabinets, and the electronic communications equipment housed within them, reflects the technical and operational requirement to be in reasonable proximity to the antenna systems they support.

## **Access Considerations**

- 5.6 The installation is proposed to be installed to the side of an agricultural storage building with an off-street parking area available within close proximity.
- 5.7 Once constructed, the development will be unmanned requiring only periodic visits about once every two to three months for routine maintenance and servicing. The site will be easy to access for this purpose and typical visits will be by an engineer using a light vehicle that will be parked lawfully nearby.

## **Landscaping**



- 5.8 In view of the nature of the development which already looks to best utilise existing screening benefiting from the masking effects associated with a backdrop of tree coverage and an agricultural storage building, a scheme of hard or soft landscaping is not considered necessary or appropriate in this case. The development is similar to other man-made utility and communication structures commonly found in street locations without dedicated associated landscaping.

#### Appearance

- 5.9 The sensitive approach to siting and design should minimise the appearance of the development proposed. In addition, the local topography and natural features should help minimise views. Insofar as the mast and equipment cabinet may be visible they should look straight forward in appearance and reflect their function. To that extent they should in time become accepted features of the local environment as with other forms of communications networks and essential public utility infrastructure.

## 6. ICNIRP COMPLIANCE

- 6.1 A certificate confirming compliance with the relevant ICNIRP guidelines on public exposure has been supplied with this application. Accordingly, as explained within the NPPF, it is not necessary, to consider further the health aspects and concerns about them, which include the perception of risk.

## 7. SUMMARY AND CONCLUSIONS

- 7.1 The proposed development forms part of Arqiva's planned Smart Meter network, which is being created as part of the government's initiative to roll out smart electricity and gas meters to homes and small businesses across Great Britain between 2014 and 2020. The network forms part of the UK's National Infrastructure Plan and the information provided by smart meters will help consumers to better manage and reduce energy use and potentially save money. Smart meters will play an important role in the government's policies to achieve a transition to a sustainable and low-carbon economy.
- 7.2 The use of the application site looks to provide the best balance between operational and environmental considerations. The site is located so that it can provide the required level of coverage to the properties it needs to serve, and the use of an innovatively designed slim line structure will ensure that it appears similar to other street furniture commonly found within the street scene. The design and appearance of the structure should, therefore, be acceptable.
- 7.3 This statement has demonstrated that the proposal is in accordance with national policy set out in the NPPF and its detail complies with local policy objective of minimising potential environmental impact.
- 7.4 In conclusion, the application merits support and there are no material considerations that indicate otherwise.

**Supporting Technical Justification for Site Reference YO302 Bayness Farm GF**

NYMINDA  
24 AUG 2018

## **1. Introduction**

- 1.1. This document has been prepared to support the planning application to develop a base station as part of Arqiva's planned Smart Meter communications network. Smart Metering is a Government programme to roll out, between 2014 and 2020, smart electricity and gas meters to homes and small businesses across Great Britain.
- 1.2. The Smart Meter initiative is a key part of the Government's programme to cut greenhouse gas emissions, decarbonise the economy and support the creation of new green jobs and technologies. Arqiva has been appointed to build the Smart Meter communications network in the north of England and Scotland.
- 1.3. The document provides supporting technical information and justification on the following matters:
  - The operation of the base station
  - The extent of coverage provided from the base station
  - Health and Safety information, including compliance with the guidelines of the International Commission on Non-Ionizing Radiation Protection (commonly referred to as the ICNIRP guidelines)

## **2. How the Base Station Operates**

- 2.1. Smart Meters are the next generation of gas and electricity meters. They will offer a range of intelligent functions and provide consumers with more accurate information, bringing an end to estimated billing. Consumers will have near real-time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions. The UK Government's aim is for all homes and small businesses to have smart meters by 2020.
- 2.2. In order to deliver these benefits, a network of radio base stations needs to be built to connect customers' Smart Meters with their energy supplier.
- 2.3. A base station consists of a cabinet or cabinets containing radio transmitting and receiving equipment and an electrical power system, coupled to a set of antennas. The base station communicates with Smart Meters in the local area. It requires a power supply and also needs to be connected into the wider Smart Meter network. This will normally be achieved by connection to underground ADSL cables. In the rare occasions where this is not feasible, then the transmission link will be provided by a small VSAT dish, similar in size to a domestic satellite dish.
- 2.4. The main function of the mast, or alternatively the host building or other structure, is to elevate the antennas above obstacles such as tall trees, buildings, or valley sides that would otherwise block radio signals and prevent coverage from being provided.

## **3. Technical Information**

- 3.1. Arqiva is licensed by Ofcom, the independent regulator and competition authority for the UK's communication industries, to provide electronic communications services in the public interest.

- 3.2. Smart gas and electric meters within premises will connect to Arqiva's network by means of the Communications Hub, which will be installed separately from the Smart Meter unit. The system uses Long Range Radio in the UHF band at 412-414 MHz for the uplink and 422-424 MHz for the downlink, using licensed spectrum. The network equipment is provided by a US company, Sensus and operates over a proprietary radio protocol, which has been customised for utilities messaging services. This solution is ideal for covering the varied terrain and building types of the UK, and is in wide deployment in the US.
- 3.3. The typical operation of the Smart Metering system consists of meters sending readings to their Communications Hub by a pre-set schedule e.g. every hour or every four hours, etc. (Communications between the meter and the Communication Hub are typically in the 2.4 GHz or 870 MHz bands). Also on a pre-arranged schedule, the base station sends a message to each Communications Hub (at 424MHz) to request readings. The Communications Hub then responds (at 414MHz) with its stored readings. Each message is typically of the order of several hundred bytes sent for durations of less than half a second.
- 3.4. Arqiva is under a legal obligation to comply with the conditions of its licence granted by Ofcom. These conditions ensure avoidance of interference with other radio systems, other electrical equipment, instrumentation or air traffic systems. The conditions of the licence are mandated by Ofcom who are responsible for the regulation of the civilian radio spectrum. Ofcom also has powers to investigate and remedy any reported significant interference.

#### **4. Technical and Operational Requirements**

- 4.1. The location of the base station has been selected following a comprehensive search of a number of alternative locations, which is summarised in the Planning Statement provided with the planning application. From the technical and operational perspectives, the location of the base station is determined by the following factors:
  - The need to provide an acceptable level of coverage to the local area
  - The terrain in which the base station will be located and the height of any potential blockages, such as trees or buildings, nearby
  - Proximity to a power source
  - An accessible route for construction and future maintenance access
  - Feasibility of providing the Ground Based Transmission network

#### **5. Predicted Coverage**

- 5.1. The radio propagation plots in Appendix A show the geographical extent of the expected coverage from the site and its role within Arqiva's wider Smart Meter network.
- 5.2. The plot has been produced by computer modelling software in order to predict the extent of coverage and signal quality provided by the base station. The extent of coverage is dictated by many factors including the height of the antennas above ground level, the frequency and type of the antennas, the nature of the surrounding topography, and the presence of buildings and trees that can cause reflections or absorb the radio signals.
- 5.3. The following information is shown on the plots:

- The location of the base station, which is indicated by its site reference
- The orientations and type of the antennas, which are indicated by the various site symbols
- The extent of coverage is illustrated by the **Red** shading.

## **6. Compliance with Health and Safety Guidelines**

- 6.1. The proposed base station has been designed, and will be constructed and operated, in accordance with all relevant health and safety requirements, including the guidelines of the International Commission for Non-Ionizing Radiation Protection (ICNIRP) as adopted in the EU Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0Hz to 300GHz). The ICNIRP guidelines are accepted by the UK Government as the appropriate safeguard to public health.
- 6.2. ICNIRP is a non-governmental organisation formally recognised by the World Health Organization. The ICNIRP guidelines were developed following reviews of all the relevant peer-reviewed scientific literature. The ICNIRP Public Guidelines, which incorporate a precautionary safety factor of 50 times, are designed to protect all members of the public 24 hours a day.
- 6.3. The certificate submitted with the planning application certifies that the base station, when operational, will meet the precautionary ICNIRP guidelines. For the avoidance of doubt, the certification relates to the radio coverage provided from the base station and any other electronic communications installations at the site.

## **7. ICNIRP Certification - National Planning Policy Guidance**

- 7.1. Section 5 'Supporting high quality communications infrastructure' of the National Planning Policy Framework for England provides the following guidance to local planning authorities on health safeguards and base station development:

*'46. 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.'*

- 7.2. Essentially the same guidance is provided paragraph 300 of Scottish Planning Policy, which states that where planning applications are supported by a declaration that the equipment and installation is designed to be in full compliance with the appropriate ICNIRP guidelines for public exposure to radiofrequency radiation (paragraph 296) then:

*'300. Planning authorities should not question the need for the service to be provided nor seek to prevent competition between operators. The planning system should not be used to secure objectives that are more properly achieved under other legislation. Emissions of radiofrequency radiation are controlled and regulated under other legislation and it is therefore not necessary for planning authorities to treat radiofrequency radiation as a material consideration'.*

## **8. Further Information**

- 8.1. Further information on health and safety guidelines can be found from the following sources:



**ICNIRP:** <http://www.icnirp.org/>

**World Health Organization:** [http://www.who.int/topics/electromagnetic\\_fields/en/](http://www.who.int/topics/electromagnetic_fields/en/)

**Public Health England:** <http://www.hpa.org.uk/HPAwebHome/>

# Appendix A

