

SUPPLEMENTARY INFORMATION

1. Site details

Site Name	Land at Port Talbot Dock	Site Address	Port Talbot Docks, Port Talbot, Neath, SA13 1RN
NGR	E 275526 N 188679		
Site Ref Number	93782	Site Type	Macro

2. Pre-Application Check list

Site selection

Was the mast register of the authority ² responsible for planning used to check for suitable sites by the operator or the authority?	Yes	No
Was the industry site database checked for suitable sites by the operator?	Yes	No

Annual roll out consultation with the authority² responsible for planning

Date of last annual rollout information/ submission	N/A	
Name of contact	N/A	
Summary of outcome/Main issues raised	N/A	

Pre-application consultation with the authority² responsible for planning

Date of written offer of pre-application consultation	11 th November 2020	
Was there pre-application contact	Yes	No
Date of pre-application contact	N/A	
Name of contact	N/A	
Given the nature/surroundings of the site and the timescales for pre-application advice, it was decided in this case that, pre-application advice is not necessary and it is not foreseen that the proposed site is going to have an adverse siting/visual impact.		

Ten Commitments Consultation

Rating of Site under Traffic Light Model	Green
Outline Consultation carried out: A Traffic Light Rating (TLR) was undertaken in order to compose a consultation plan. The site was rated green and therefore, no further pre-application consultation was undertaken.	

School/College

No schools are within 250m of the proposed site location.

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation

N/A

3.0 Proposed Development

The proposed site
Please refer to Design, Access and Supporting Statement.
In acknowledgement of the site location, a 'permeable' design is being proposed in order to assimilate into the landscape more effectively.

A map extract is enclosed with this application showing the site location.

Type of Structure (e.g. tower, mast, etc.): 25-metre-high ground based Swann Engineering 1S lattice tower	
Overall Height	25m
Materials (as applicable)	
Type of material and external colour	Steel and Galvanised
Equipment housing – type of material and external colour	Steel/aluminium and light grey (RAL 7035)

Reasons for choice of design

The design has been chosen as it meets both the technical requirement to provide the necessary service in terms of height and the lattice design is considered to have the least visual impact in its setting.

From the outset, when it became apparent that the location proposed is the optimum in terms of coverage, EE worked to find a design which would minimise visual impact on the surrounding area, blending in this apparatus with its immediate surroundings. As such, a 25m high mast is sufficient to provide the coverage required.

4.0 Technical information

ICNIRP Declaration attached – **Yes**

ICNIRP 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.

Frequency:

*All EE Ltd 3G sites operate both the GSM1800 system (transmitting in the frequency range of **1846.5MHz** to **1876.5MHz**) and the UMTS system (transmitting in the frequency range of **1904.9MHz** to **1909.9MHz** and **2159.7MHz** to **2169.7MHz**).*

Modulation characteristics³

*The modulation method employed in GSM1800 is **GMSK** (Gaussian Minimum Shift Keying) which is a form of **Phase Modulation**.*

*The modulation method employed in UMTS is **QPSK** (Quad Phase Shift Keying) which is another form of **Phase Modulation**.*

Power output (expressed in EIRP in dBW per carrier):

In order to minimise interference within its own network and with other radio networks, EE Ltd operates its network in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.

As part of the EE Ltd network, the radio base station that is the subject of this application will be configured to operate in this way.

EEs' licence limits the allowed radiated power to an effective isotropic radiating power (EiRP) of +32dBW per carrier for both GSM1800 and UMTS

*For a **Microcell** the typical EiRP would be between approximately +16.5dBW per carrier and +26dBW per carrier for GSM1800. For UMTS a typical EiRP would be +20dBW per carrier.*

Height of antenna (m above ground level)

15m

³ The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation

5.0 Technical Justification

At present, there is an existing site located at Hill Farm, Silver Hill, Hintlesham, Ipswich, IP8 3NJ that has historically provided network coverage to the area, however, EE's Network Planner has confirmed that this existing coverage is less than sufficient due to the surrounding topography of the area interfering with signals. As such, there is a requirement for essential upgrading works to the apparatus in this location. Unfortunately, due to future redevelopment plans proposed by the Landowner at the existing site location, the site is unable to be upgraded. Therefore, the existing apparatus is to be removed and consequently replacement site(s) are required in order to maintain and subsequently improve coverage to this area.

An antenna height requirement of 30-50m was quoted by EE's Network Planner in order to maintain the coverage to the area, however, this was unachievable at a single site due to the lack of buildings or tall structures of this height that could accommodate the equipment. Additionally, a suitable site could not be identified that would accommodate a new 30-50m high greenfield mast. Therefore, to continue to provide and improve coverage to the area, a cell split (two sites) is required, whereby two antennas at lower heights than the required 30-50m antenna height will be strategically located within the target coverage area to ensure that signal strength is not lost as a result of removing the existing apparatus at Hill Farm.

The proposed site was identified as the optimum location in both planning and technical terms for this share of the cell split.

GSM Coverage

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. Our network rollout programme is designed to identify and address these gaps within our coverage and ensure that people can use their phones whenever and wherever they are.

The distances between transmitter sites will depend on many factors, including the geography of the area, the number of buildings, the number of people living in the area and the growing demand for mobile services. As a result, the distance between sites can range from less than 1 kilometre in large urban areas to 8 kilometres in rural areas.

There is currently an adequate provision of EE service in this area provided by the existing site. However, two sites are required in order to maintain and subsequently improve vital services to the area.

As such, in order to provide significantly improved coverage to all customers, including the Emergency Services, this application is submitted in order to achieve this.

3G/4G/5G Rollout

Data traffic is increasing and is forecast to continue to grow, as technology is developed to facilitate this. Services such as direct access to the Internet from a handset, downloading files from the office to a mobile laptop computer and videophones are now offered and expected by subscribers. These data services are commonly known as third generation or 3G services, fourth generation or 4G services and fifth generation or 5G services. All the mobile telecoms operators agreed with the government to offer 90% geographic coverage by the end of 2017. This site forms part of that wider policy requirement.

These services are provided using a combination of UMTS and new generation GSM equipment. UMTS will provide very fast data rates. However, for the network to work effectively, we also need to provide an "umbrella" GSM network which is also capable of providing high speed data albeit at slower rates than UMTS. In addition, EE are responsible for the rollout of the new Emergency Services Network and the obligation is to provide the latest 5G services for data transfer, video footage and communications throughout the country. Such services can only be provided with an effective rollout of upgraded and new telecoms base stations and this site forms an integral aspect within the wider network provision.

The installation has been sited and designed to maintain and subsequently improve coverage to this area due to the proposed removal of the existing infrastructure that services this area and, will maintain and provide improved essential services to local residents, businesses and the Emergency Services.

6.0 Site selection process – alternative sites considered and not chosen

Alternative sites were investigated when searching for a replacement location and a full list and map of these sites can be found in the Design, Access and Supporting Statement that accompanies the application.

Contact Details

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Signed		Date	26/06/2023