

SUPPLEMENTARY INFORMATION

1. Site details

Site Name	Port Talbot Dock GF	Site Address	Port Talbot Dock, Puckney House, Port Talbot, Neath, SA13 6BP
NGR	E 275624 N 188672		
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

None within consultation distance.

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 fir green (RAL 6009)

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)

25m

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

5.0 Technical Justification

The proposal has been sited and designed to improve the level of coverage to the area due to the existing site not being upgradeable due to structural issues with the tower.

There are no available existing sites, buildings or rooftops in this area that could be utilised to achieve this replication of coverage required as illustrated in the alternative site assessment.

The proposed site was identified as the optimum location in both planning and technical terms.

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 inadequate provision of EE service in this area provided by the existing site. Therefore, to improve coverage to this area, a replacement site is required as the existing cannot be upgraded.

As such, in order to provide improved coverage to 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 mobile telecoms operators have agreed with the gov to offer 90% geographic coverage by the end of 2017. This site forms part of that wider policy requirement.

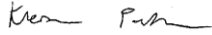
These services are provided using a combination of UMTS and new generation GSM equipment. UMTS will provide very fast data rates, however for the network to work effectively we also need to provide an "umbrella" GSM network which is also capable of providing high speed data albeit at slower rates than 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 subsequently improve coverage to Port Talbot due to the existing site not being upgradable due to structural issues and will 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	27/07/2021