

DESIGN AND ACCESS STATEMENT

**Proposal to construct a new electrical sub station. To include
1No. Sub station building and 2No. concrete bunds**

Land at Seagull Lane
Emsworth

Undertaken on behalf of
Scottish & Southern Energy PLC

Section 1 - Design

1.1 Introduction

- 1.1.1 This planning application design and access statement relates to the proposed construction of a new electrical compound site at the end of Seagull Lane, Emsworth.
- 1.1.2 The proposed development is to create a new electrical compound and switch house owned by Scottish & Southern Energy PLC.
- 1.1.3 The proposed switch house is to eventually replace the existing electrical site with in Emsworth. Due to development around the site it is not possible to expand and replace outdated outdoor High Voltage switchgear and associated protection equipment. This equipment needs to be replaced in order to:
- Maintain and secure the current levels of electrical supply
 - Minimise potential interruptions or failures in supply
 - Minimise duration of supply outages
 - Enhance ability to manage peak demands for supply
 - Improve security and protection of substation equipment from theft and vandalism
- 1.1.4 To ensure future ability to cope with increased loads in the area arising from general use and new developments. SSE is proposing to construct the new compound in the Greenfield site at the end of Seagull Lane.

- 1.1.5 The new site already has planning permission for the construction of Industrial units. The proposed access to the site would be through this new construction. The original planning application reference is: 07/54901/007. The application was successful and in July 2012 an extension of time was granted, reference: APP/10/09912. As part of the response to the letter dated 01/07/14, the drawings associated with these applications have been attached to this application for reference.
- 1.1.6 The existing plans show concrete bases on the site. It is believed that these were used as part of the old gas works.



Image 1 – Emsworth existing concrete bases

1.2 Use

- 1.2.1 The new switch house will be constructed to house electrical switchgear, relay gear and associated ancillary equipment.

1.3 Size and Scale

- 1.3.1 The floor area of new switch house will be 94.9 sqm. The overall height of the tallest elevation, facing out from the compound, will be 7.5m.
- 1.3.2 The switch house has been designed as a single storey double height building. This is the new standard design favoured by Scottish & Southern Electric. The reason for this is that it enables the electrical engineers to safely install large cables as apposed to there previous designs which required the engineers to crawl in small trenches. Another benefit of this design is the building is almost always above any flood risk levels.
- 1.3.3 The dimensions of the switch house are dictated by two factors:
- the required size of electrical control gear to be installed
 - the requirement for clear access beneath the floor of the switch house for ease of installation and future maintenance
- 1.3.4 The total area of the new site is 1043 sqm and the compound will be 748 sqm, and the proposed new fencing will be a palisade style. This is subject to acceptance by the planning authority.

1.4 Layout

- 1.4.1 The layout of the new compound has been dictated by the minimum clearances required around the switch house and equipment to avoid:

- encroachment of safety distances
- confined spaces
- operational reasons for cabling

1.5 Landscaping

- 1.5.1 Some soft landscaping will be lost for the creation of the newly configured compound and switch house. Other soft landscaping will be kept the same, or replaced if disturbed during construction.
- 1.5.2 The compound surface will be finished in 28mm shingle stone and the access road will be of concrete construction. This will allow vehicular access where currently there is not.

1.6 Appearance

- 1.6.1 The new switch house will be rendered; the colour will be from the Baunit standard colour range 'Tradition'. The new steel doors will be polyester powder coated and finished in Merlin Grey (BS18-B-25).
- 1.6.2 The roof will be a Kingspan KW1000 insulated roof panels, grey (BS 18-B-27).
- 1.6.3 The windows will be white UPVC frames with 2mm perforated steel security mesh.
- 1.6.4 The materials detailed above have been selected so that the building matches the proposed surrounding buildings. They also suit the requirements of the electrical equipment and improve thermal performance.

- 1.6.5 The appearance of the new compound fence will ensure the site is kept secure and allow views in to the site from the outside to deter potential intruders.



Image 2: 3D View of proposed switch house

1.7 Access

- 1.7.1 Access to the new compound will be through the new industrial site via a new set of palisade gates.
- 1.7.2 The gates will allow access for all SSE vehicular traffic into the compound but will prohibit entry by un-authorised persons.

Section 2 - Access

2.1 Lighting Assessment

- 2.1.1 Security lighting will be required in the new compound for health and safety and security reasons. This lighting will be operated by sensors and will not illuminate the area when not in use.

2.2 Parking & Access / Transport Assessment

- 2.2.1 The proposed development will require an increase in vehicular transport to the site only during the course of the works. Once works are completed it is unlikely that there will be more than one vehicle per week. It is common for electrical switch houses to have no more than a yearly inspection.

2.3 Arboricultural Assessment

- 2.3.1 The majority of the site is currently grass. The proposal would require an area of grass to be removed and disposed of for the necessary compound works and associated fencing work to take place.



Image 3: Entrance to proposed site from Seagull Lane

2.4 Archaeological Assessment

- 2.4.1 As part of the preliminary investigations for this proposal, drainage and ground radar surveys have been undertaken. The findings of these surveys have been taken into consideration.

2.5 Biodiversity Survey

- 2.5.1 It is not considered that the proposed development will have any affect on the existing biodiversity in the area.

2.6 Flood Risk Assessment

- 2.6.1 The application site has been identified by the Environment Agency as within Flood Zone 2. A flood risk assessment has been commissioned and results are expecting in mid August 2014.

2.6.2 As the switch house is built on stilts it is not expected that the building will have any issues with floor water.

2.7 Noise Impact Assessment

2.7.1 The proposed development will not result in the installation of noise generating equipment.

2.8 Air Quality Assessment

2.8.1 The proposal will not adversely affect the air quality to the surrounding area; as such no air quality assessment has been undertaken.

2.9 Ground Conditions and Foul Sewage Assessment

2.9.1 Following the ground survey and asset location search from Thames Water there are no underground drains or sewage pipes within the site.

2.10 Construction Site Waste Management Plan

2.10.1 A Construction Site Waste Management Plan will be formulated prior to any works commencing on site.

2.11 Security Assessment

2.11.1 As part of the proposal a palisade security fence will be constructed around the new compound with new security entrance gates.

2.11.2 The building will be alarmed and monitored by the SSE Security Control Centre in Portsmouth.