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DESIGN AND ACCESS STATEMENT

Construction of new electricity switch house
Drakesway Electricity Substation
Gerrard Way
Swindon
SN1 2PA

Undertaken on behalf of
Scottish and Southern Energy Networks (SSEN)

Section 1 - Design

1.1 Introduction

1.1.1 This planning application design and access statement relates to the proposed construction of a new switch house within the existing compound of Drakesway Electricity Substation, Gerrard Way, Swindon, SN1 2PA.

1.1.2 The proposed development is to an existing electrical compound and switch house owned by Scottish & Southern Energy Networks (SSEN).

1.1.3 The proposed switch house is required due to SSEN's requirement to replace outdated outdoor High Voltage switchgear and associated protection equipment relay gear controlling the adjacent electrical installations to: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 SSEN is proposing to construct the new switch house adjacent to the existing one.

1.2 Use

1.2.1 The new switch house will be constructed to house electrical switchgear, relay gear and associated ancillary equipment. The switch house facility is unmanned. The ground floor of the switch house will contain cables but will be open to the elements. A fault condition can require an engineer to attend site at any time of day or night all year round.

1.2.2 On average, once commissioned, visits at 3-monthly intervals could be expected for routine maintenance. The switch house will also be accessed when necessary in fault conditions. This arrangement will not change from existing.

1.3 Size and Scale

1.3.1 The total footprint of the new switch house will be 99 sqm. The overall height of the tallest elevation, facing out from the compound, will be 7.5m.

1.3.2 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

1.4 Layout

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

- encroachment of safety distances
- operational reasons for cabling

1.5 Appearance

1.5.1 The new switch house will be finished in insulated cladding. Steel columns will be visible up to floor level. Fencing will span between the columns underneath the switch house.

1.5.2 The new steel doors will be polyester powder coated and finished in Grey.

1.5.3 The roof will be a Steel Kingspan type insulated roof panels in grey.

1.5.4 The materials detailed above have been selected so that the building matches the surrounding buildings. They also suit the requirements of the electrical equipment and improve thermal performance.

Section 2 - Access

2.0 Access

2.0.1 Access to the compound following works will be as existing.

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 Once works are completed there will be no increase in the volume of vehicles to the site than is currently experienced.

2.3 Archaeological Assessment

2.3.1 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.

2.4 Biodiversity Survey

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

2.5 Flood Risk Assessment

2.5.1 The application site is identified by the Environment Agency as likely to suffer from flooding; a flood risk assessment specific to this site has therefore been commissioned and its findings show a risk of Fluvial and surface water flooding which is the reason behind the the building and equipment being raised as discussed earlier.

2.6 Noise Impact Assessment

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

2.7 Air Quality Assessment

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

2.8 Ground Conditions and Foul Sewage Assessment

2.8.1 Following the ground survey there are no underground drains or sewage pipes within the site.

2.9 Security Assessment

2.9.1 All construction works will be within the existing compound. SSEN require compound gates are required to be locked when not in use.

2.9.2 The building will be alarmed and monitored by the SSEN Security Control Centre.