

Summary Information Report

To support the Dismantling and full Replacement of Overhead Transmission Towers (Pylons) at Sellafield as part of the Electrical Distribution Network Upgrade Project.

Area Description

The Electrical Distribution Network Project (EDNU) is currently ongoing upgrading the power supply around the Sellafield Site. Later this year (2024) the Project will dismantle 12 electrical overhead transmission towers (electrical pylons), 8 of which are on site and 4 in fields to the north of site.

6 Towers will be fully dismantled and replaced with new towers – BL1, BL2, BL3, BL4, BL5 & AU5A.

6 Towers will be fully dismantled and removed as they are no longer required – AU1, AU2, AU3, AU4, AU5 and BL6.

The Project are to notify the Local Planning Authority for the dismantling of AU1, AU2, AU3, AU4, AU5 and BL6.

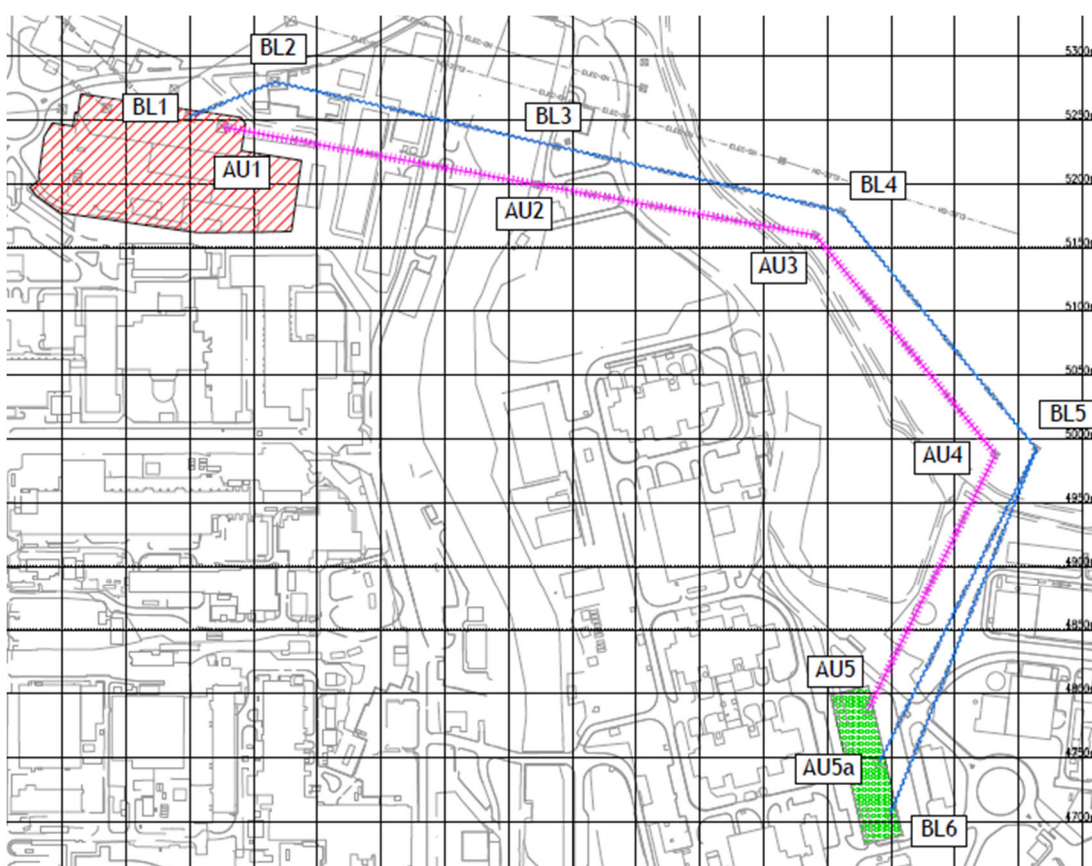


Figure 1 - Towers On the Sellafield Site and Off the Sellafield Site

Each of the towers is constructed of galvanized steel sections bolted together on a concrete foundation. Upon demolition each of the towers will be removed to foundation level, with the foundation slab remaining in place pending review of future remediation and/or site redevelopment plans.

Reason for Full Tower Removal

Tower analysis has shown that there are a number of members on the existing towers that are over utilised, as a result optioneering was undertaken with the output being the full replacement of the existing towers which will provide SL with assurance of the lifespan of 30 years.

All foundation loads are found to be within the original design foundation loads for the existing towers and thereby no foundation strengthening will be required. There was no condition assessment available at the time of analysis, therefore the original foundation designs were assumed to be fit for purpose.

Conductor assessment confirms that under selected sagging basis the mechanical strength of the conductors is adequate. However, the conductor tension does exceed the 20% limit for Aeolian vibration as per ENA 43-125 (maximum value of 21.7% main spans and 24.3% in downleads).

Method of Dismantling

Due to towers AU3, AU4, BL4 & BL5 being offsite in the farmers field with no special restrictions they will be felled (i.e. cutting of the rear legs and pulled over in a controlled manner). All other towers will be dismantled piecemeal by use of a crane. Once at ground level the towers will be size reduced and put into skips for removal via the SL waste route.

Environmental Impact and Waste Streaming

- Appropriate characterisation of waste has been taken in line with SL Procedures.

| Waste Type | Waste Weight (te) | Radiological Categorisation | Chemical Categorisation | Waste Route |
|------------|-------------------|-----------------------------|-------------------------|-----------------|
| Tower AU1 | 16.5 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower AU2 | 6.4 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower AU3 | 9.6 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower AU4 | 14.3 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower AU5 | 6.2 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower AU5A | 6.2 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower BL1 | 16.5 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower BL2 | 9.6 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |
| Tower BL3 | 6.2 | Excluded (EPR2016) | Non-Hazardous | SL Waste Metals |

| | | | | |
|------------------|-------------|-----------------------|-------------------|-----------------|
| Tower BL4 | 9.6 | Excluded (EPR2016) | Non- Hazardous | SL Waste Metals |
| Tower BL5 | 14.3 | Excluded (EPR2016) | Non- Hazardous | SL Waste Metals |
| Tower BL6 | 6.2 | Excluded (EPR2016) | Non- Hazardous | SL Waste Metals |

Waste is expected to be not classified as radioactive material but will be subject to survey before release from the Sellafield site. Any waste found to be radiologically contaminated will be embargoed and sentenced to a suitable alternative waste route.

Waste removal to off-site disposal and recycling facilities is estimated to require eight 20.0Te HGV vehicle movements over a four day span. HGVs associated with this demolition will leave Sellafield site via the main gate and will be timed to avoid rush-hour traffic.

Dust generation is not expected to be significant; the structure is a steel frame requiring no concrete dismantling.

Access roads local to the offsite towers are in good order, however vehicles will be tracking over unmade ground (fields) to remove the offsite towers and install replacements (where required), and this ground will be protected with GRP matting.

Demolition activity hours will be 0700-1900 Monday-Thursday. Weekend working may occasionally be required but will be limited to preparatory works for demolition activities such as cable re-routing and vehicle access.