11 Noise

11. Noise

11.1. Introduction

11.1.1. The proposed Limekiln BESS development (the Proposed Development) is located within the Limekiln Wind Farm area and this Chapter discusses the potential noise impact at the nearest receptors identified (i.e. residential properties).

11.1.2. Construction noise for a BESS would be mostly from mobile plant on-site for earthworks and various small scale construction activities and deliveries. The principal noise emissions associated with the operational phase would arise from fixed plant such as battery units and inverters / transformers.

11.1.3. TNEI Services Ltd (TNEI) has prepared this chapter and has extensive experience of noise assessment for BESS developments.

11.2. Assessment of Likely Affects

11.2.1. The Proposed Development location is such that it is a remote location within the existing Limekiln Wind Farm, where the construction compound of that wind farm was located. As such the immediate surroundings are wind turbines spread over the local hills and receptors are distant.

11.2.2. The nearest noise sensitive receptors of interest are residential properties quite distant from the Proposed Development and these were already identified in the scoping report which suggested that noise could be scoped out. Figure 11.1 depicts the BESS area and nearby noise sensitive receptor and Table 1.1 below shows the distances between nearest identified receptors and the Proposed Development. It should also be noted that there will be no line of sight between the Proposed Development and the receptors due to a hilly topography, inclusive of the Creag Letham Hill.

Table 1.1 Noise Sensitive Receptors

Noise Sensitive Receptor	Easting	Northing	Approximate Distance to BESS (km)
NSR1 – Achins	295877	964090	2.9
NSR2 – Borlum House	297199	964065	2
NSR3 – Milton	297861	964470	2.3

NSR4 - Loanscorribest	298508	964010	1.9

11.2.3. In TNEI's professional opinion and experience of preparing BESS operational noise assessments, at distances over 1 km away from any BESS fixed plant no significant operational impact would be anticipated for a BESS of this scale (up to 70 MW) and no noise assessments are usually required. Here the distances are over 1.9 km so this well exceed the 1 km approximate threshold. Given the separation distances between the Proposed Development and the noise sensitive receptors, no detailed noise assessment is required and no significant operational impact are anticipated.

11.2.4. For construction noise, similarly to operational noise the distances between receptors and the main construction area and activities are large. Furthermore, construction noise can be managed if required through the adoption of best practice measures incorporated within a Construction Environmental Management Plan (CEMP). This could be prepared prior to the start of construction and would include construction hours beyond which construction works would not be able to take place. The distance to receptors, temporary nature of the construction phase, and with construction works being limited to certain hours of the day, including reduced hours on a Saturday and avoiding Sundays and Bank Holidays, means that construction noise is not expected to result in significant effects. Effects during eventual decommissioning of the Proposed Development would be similar to those during construction.

11.2.5. It is understood there will also be a minor upgrade to the wind farm substation to accommodate the connection of the Limekiln BESS. The distance of the substation is approximately 630 m north west of the proposed BESS site, and 1.3 km away from the nearest receptor. As such, given the large separation distances and the fact only minor upgrades are suggested, no significant operational and construction noise impact are anticipated due to the substation upgrade.

11.3. Conclusion

11.3.1. Given the large distance between the Proposed Development and nearby receptors, no significant noise effects associated with the construction, operation or decommissioning of the Proposed Development are anticipated.