

<b>Consultation Response from: KC Environmental Health (Pollution &amp; Noise Control)</b>		
<b>2021/93644 - Low Farm, Wakefield Road, Flockton, Huddersfield, WF4 4BB</b>		
<b>Erection and operation of grid-connected solar photovoltaic farm, with ancillary infrastructure and landscaping and biodiversity enhancements</b>		
<b>Responding Date:</b> <b>25<sup>th</sup> January 2022</b>	<b>Responding Officers:</b> <b>Mohammed Nasim – Noise</b> <b>Natalie Heaney – Contaminated Land</b>	<b>Responding Ref:</b> <b>WK/202133603</b>
<p>The application seeks full planning permission for the installation of a renewable energy generating station consisting of ground – mounted photovoltaic solar panels, transformer stations, site accesses and access gates, security measures and other ancillary infrastructure. The site is located within the Parish of Kirkburton, between Overton (about 700 m east-northeast) and Grange Moor (approximately 700 m east-northeast). The site consists of eight parcels of land (plus an additional parcel necessary for the link to the national grid), three to the south and six to the north of Wakefield Road (approximately 800 m to the west). Flockton is about 75 metres to the south of the southernmost field, while Bristfield is about 1.2 kilometres to the north.</p> <p>The landscape is defined as undulating on either side of the A642 (Wakefield Road) which gently falls away to the north and south of the road and is currently used for agriculture (arable cropping). It is in a heavily coal-mined area and is near to the National Coal Mining Museum with its associated structures and yards.</p> <p>We have reviewed the submitted information and make the following comments and recommendations.</p> <p><b>Glint and Glare</b>        An unreferenced Glint and Glare Assessment has been submitted by NEO Environmental (dated 25/06/2021). This is outside the remit of Environmental Health and therefore we are not able to comment.</p> <p><b>Noise</b>        The applicant has submitted a Noise Impact Assessment (NIA) authored by Hydrock dated 01 June 2021 Ref 17298-HYD -RP-ACO-001. The assessment considers the impact of noise from the operations at the proposed development at Existing Sensitive Receptors (ESRs), in particular noise associated with ancillary equipment that is due to be installed on the site. The nearest ESR and their approximate distances from the site boundary are summarised in Table 1. These range from 10m to the south east of the site through to 270m to the north.</p> <p>Unattended noise monitoring was carried out at four Monitoring Locations (ML) in the vicinity of ESRs, between the 13<sup>th</sup> and 14<sup>th</sup> of May and the 17<sup>th</sup> and 18<sup>th</sup> of May. Para 3.2 states the four MLs were –</p> <ul style="list-style-type: none"> <li>• ML1 – Located to the west of the proposed solar farm site in the vicinity of ESR1. This location is considered to be representative of dwellings to the north and west of the Site.</li> <li>• ML2 – Located to the north of the proposed solar farm Site and is considered to be</li> </ul>		

representative of dwellings to the north of the Site. This location was furthest away from the A642.

- ML3 – Located to the east of the proposed solar farm site, in the vicinity of ESR4. This location is considered to be representative of dwellings located to the east of the Site. This location was closest to the A624, however noise from the road traffic at this location was minimal.
- ML4 – Located to the south of the proposed solar farm site, in the vicinity of ESR3 and ESR4. This location is considered to be representative of dwellings to the south of the Site.

Para 3.3 summarises the existing noise climate and identifies road traffic noise and birdsong and wildlife noise as contributors to the noise climate at the site. A summary of measured daytime and night-time noise levels is provided in Table 2 with maximum night-time levels in table 3.

Section 4 assesses the industrial noise and states that the proposed noise sources at the site consist of 17 transformers that are located inside metal enclosures 6m long x 2.4m wide x 2m high. The applicant has submitted a data sheet for an STS-6000K-H1 Smart Transformer Station and it is assumed these will be installed on site. They show a partially open area with a mesh insert which is assumed to assist with ventilation.

These transformers are located in various positions across the site and table 4 shows they emit a sound pressure level ( $L_p$ ) of 70dB at 1m distance. Table 5 gives an example of the noise spectrum which shows it is weighted more towards the lower frequencies i.e. 63-250Hz. Para 4.3 looks at the timings of the transformers stating it is understood that the transformer units will be operational in the presence of sunlight/daylight. During the summer months sunlight can begin as early as 0400hrs which is categorised as night time in accordance with BS4142. Therefore, night time noise impacts are considered between 0400hrs and 0700hrs.

A BS4142 assessment has been carried out at para 4.4 and a +2dB correction has been added to account for the tonality of the transformers being perceptible at the ESRs. The most significant exceedance of rating level over background, and therefore potential impacts, have been identified to occur at ESR4 - Low Farm and ESR5 - Grange Lane. Impacts at these ESRs are summarised in Table 6 and Table 7. At ESR4 - Low Farm, there is a 1dB exceedance at night-time and at ESR5 - Grange Lane, there is a 3dB exceedance at night-time. All other ML sites and times are below background levels and this is shown in Appendix G.

When taking into account distance attenuation, the specific level of sound from the transformer units at ESR4 - Low Farm and ESR5 - Grange Lane, during the night time period is 36dB and 38dB respectively. The average night time (0400hrs to 0700hrs) residual sound level is 35dB. The specific and residual sound levels are considered to be low and are both significantly below the recommended internal noise level of 30dB  $L_{Aeq}$  within bedrooms, when assuming attenuation through an open window of 15dB. During the night time period, the level of industrial noise in external areas associated with ESRs are not considered to be relevant to amenity, as outdoor living areas are not expected to be occupied during the night time period and this point is accepted.

The submitted findings of the report are accepted but it fails to consider any noise emitted from the two substations and auxiliary switchgear on site within a compound measuring 48m (L) x 25m (W) x 3.5 m (H). The Design & Access Statement authored by aardvark dated July 2021 Ref R004 states they are as follows –

- 132kV kit surrounded by a galvanised steel palisade fence, measuring approximately 48m (L) x 25m (W) x 5.9m (H) plus a relay/control room measuring 6m (L) x 5m (W) x 3.5m (H) and both sited on a concrete slab •
- 33kV kit housed in a building measuring approximately 3m (L) x 4m (W) x 3.5m (H) sited on concrete slab

The on-site substations would combine electricity from the transformers distributed across the site before transferring it to the local electrical distribution network via a Point of Connection (POC) to the 132kV network via the pylon at Lady Ings Farm.

Drawing Number B001 v3.3 from Boom Power shows both substations are located at Low Farm and consideration must be given to any noise emissions, particularly at low frequencies, from these substations which may affect the amenity of the occupiers in this area. This will need to be addressed through an addendum to the submitted NIA before further comment is made on the suitability of the proposal. A condition is recommended.

### **Contaminated Land**

This site has been identified on our mapping system as potentially contaminated land due to its previous use/s, including but not limited to those associated with coal and open cast mining (site references: 145/11, 146/11, 147/11, 148/11, 149/11, 169/11 and 170/11).

A Preliminary Phase 1 Geo-environmental Assessment and Preliminary Coal Mining Risk Assessment by WSP dated July 2021 (ref: 70078523) has been submitted in support of the application. The report includes geotechnical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspects of the report.

The report provides an appraisal of the site history and previous surrounding land uses, since the 1800s and a comprehensive assessment of the environmental setting. From this, it is evident that there have been potentially contaminative uses on the site (and/or adjoining land) which could impact the development and/or the environment. Given the nature of the proposals and only a limited number of enclosed structures, a low to moderate risk rating from contaminated land has been assigned. As such, the report recommends a limited targeted intrusive investigation to assess the ground conditions and to inform a ground gas risk assessment.

We accept the report provided and agree with the requirement for an intrusive investigation. We expect any future investigation and reporting be carried out in accordance with current UK guidance and relevant British Standards. Contaminated land conditions are therefore necessary first for a Phase 2 Intrusive Site Investigation Report and for the subsequent stages of land contamination risk management i.e., remediation and verification.

**Construction Works**

There is potential for the proposed development of the site to lead to noise/vibration, dust or other emissions during the construction period which may affect the amenity of the occupiers of neighbouring properties. A condition is recommended for a Construction Environmental Management Plan to be submitted.

**Recommended Conditions****NC8 Noise Report required for proposed noise generating use close to existing noise sensitive premises - Condition**

Before construction work commences, a further noise assessment report by a suitably competent person shall be submitted to and approved in writing by the Local Planning Authority. The report shall include –

- a) an assessment of all of the noise emissions from the proposed development
- b) details of existing background and predicted future noise levels at the boundary of the nearest noise sensitive premises
- c) a written scheme of how the occupants of the above-mentioned noise sensitive premises will be protected from noise from the proposed development including details of all necessary noise attenuation

The development shall not be brought into use until all works comprised within the measures specified in the approved report have been carried out in full and such works shall be thereafter retained.

**NF4 Competent Person - Footnote**

All noise assessments should be carried out by a competent person. Developers may wish to contact the Association of Noise Consultants <http://www.association-of-noise-consultants.co.uk/> (020 8253 4518) or the Institute of Acoustics <http://www.ioa.org.uk> (0300 999 9675) for a list of members.

**CLC2 Submission of a Phase 2 Intrusive Site Investigation Report - Condition**

Where further intrusive investigation is recommended in the Preliminary Risk Assessment approved pursuant to condition (CLC1) groundworks (other than those required for a site investigation report) shall not commence until a Phase II Intrusive Site Investigation Report by a suitably competent person has been submitted to and approved in writing by the Local Planning Authority.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

**CLC3 Submission of Remediation Strategy - Condition**

Where site remediation is recommended in the Phase II Intrusive Site Investigation Report approved pursuant to condition (CLC2) further groundworks shall not commence until a Remediation Strategy by a suitably competent person has been submitted to and approved in writing by the Local Planning Authority. The Remediation Strategy shall include a timetable for the implementation and completion of the approved remediation measures.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

**CLC4 Implementation of the Remediation Strategy - Condition**

Remediation of the site shall be carried out and completed in accordance with the Remediation Strategy approved pursuant to condition (CLC3). In the event that remediation is unable to proceed in accordance with the approved Remediation Strategy or contamination not previously considered in either the Preliminary Risk Assessment or the Phase II Intrusive Site Investigation Report is identified or encountered on site, all groundworks in the affected area (except for site investigation works) shall cease immediately and the Local Planning Authority shall be notified in writing within 2 working days. Works shall not recommence until proposed revisions to the Remediation Strategy have been submitted to and approved in writing by the Local Planning Authority. Remediation of the site shall thereafter be carried out in accordance with the approved revised Remediation Strategy.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

**CLC5 Submission of Validation Report - Condition**

Following completion of any measures identified in the approved Remediation Strategy or any approved revised Remediation Strategy a Validation Report by a suitably competent person shall be submitted to the Local Planning Authority. No part of the site shall be brought into use until such time as the remediation measures have been completed for (that part of) the site in accordance with the approved Remediation Strategy or the approved revised Remediation Strategy and a Validation Report in respect of those remediation measures has been approved in writing by the Local Planning Authority. Where validation has been submitted and approved in stages for different areas of the whole site, a Final Validation Summary Report shall be submitted to and approved in writing by the Local Planning Authority.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

**CLC 7 Contaminated land - Footnote**

All contamination reports shall be prepared by a suitably competent person, as defined in Annex 2 of the National Planning Policy Framework 2019. Reports must be prepared in accordance with the following guidance:

- *Land Contamination Risk Management (LCRM)*
- *BS 10175:2011+ A2:2017 Investigation of Potentially Contaminated Sites. Code of Practice*
- *Development on Land Affected by Contamination - Technical Guidance for Developers, Landowners & Consultants - (v11.2) June 2020* by the Yorkshire and Lincolnshire Pollution Advisory Group

**CEMPC Construction Environmental Management Plan - Condition**

Prior to development commencing, a Construction Environmental Management Plan (CEMP) shall be submitted to and agreed in writing with the Local Planning Authority. The plan shall describe in detail the actions that will be taken to minimise adverse impacts on occupiers of nearby properties by effectively controlling -

- Noise & vibration arising from all construction related activities. This should also include suitable restrictions on the hours of working on the site including times of deliveries.
- Dust arising from all construction related activities.
- Artificial lighting used in connection with all construction related activities and security of the construction site.

The agreed plan shall be adhered to throughout the construction of the development.

**Reason:** To safeguard the amenities of the occupiers of nearby properties in accordance with part 15 of the NPPF and ~~xxxxx~~ of the Local Plan

**CEMPF Construction Environmental Management Plan - Footnote**

Noisy construction related activities should not take place outside the hours of -

- 07.30 to 18.30 hours Mondays to Fridays
- 08.00 to 13.00 hours, Saturdays