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Dear Sir/Madam

TOWN AND COUNTRY PLANNING ACT 1990

TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2011

REQUEST FOR AN EIA SCREENING OPINION IN RESPECT OF THE PROPOSED INSTALLATION OF PHOTOVOLTAIC ARRAYS AT BIDDULPH WASTE WATER TREATMENT WORKS, MARSH GREEN ROAD, ST8 6QP

I write to seek a formal Environmental Impact Assessment screening opinion in respect of a proposed installation of a solar array development to provide renewable electricity to the existing, operational Biddulph waste water treatment works on behalf of United Utilities.

The site (as shown in the site location plan) has been identified by United Utilities as having good potential for the development of a ground mounted solar array given the low level nature of the development proposed and the absence of any potential significant impacts.

I wish to obtain a formal screening opinion from Staffordshire County Council to confirm the opinion that an Environmental Impact Assessment is not required in this instance.

Site Location and Context

The site comprises land within and immediately south of the Biddulph waste water treatment works located in the largely residential area of Gillow Heath, in the northern part of the settlement of Biddulph.

The immediate locality of the site is characterised by infrastructure associated with the treatment works itself, areas of scrubby open land and residential areas located to the east, west and south. The prevailing character of the area is of an edge of settlement location with a mixed character between dense residential development and open land. Beyond the residential areas and in particular directly north of the treatment works the character of the area becomes much more rural with the dominant land use being agriculture within medium sized fields.

The southern part of the site abuts the properties located at the northern end of Essex Drive. Properties to the east (Portland Drive) and to the west (Long Valley Road) are located approximately between 100-150m from the proposed solar array.

There are no international or national ecological designations within the direct vicinity of the site. The nearest national designations relate to the Gannister Quarry SSSI located approximately 1.7km to the west at its

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closest point which is designated in respect of its geology. Furthermore the Roe Park Woods SSSI is located approximately 2km to the west and is designated in respect of its semi-natural ancient woodland.

There are no known tree preservation orders within or in the direct vicinity of the site.

The closest designated heritage assets to the site relate to the following:

- Scheduled Ancient Monument: Ringwork castle in Bailey's wood located approximately 750m to the north;
- Grade II Listed Building: Gillowfield Farmhouse located approximately 200m to the south;
- Cluster of Listed Buildings including the Grade II* Church of St Lawrence located approximately 350m to the north-east;
- Grade I Registered Park and Garden: Biddulph Grange Park and Biddulph Grande Gardens run by the National Trust located approximately 400m to the north-east.

The EA Flood Map identifies that the eastern part of the site would be located within Flood Zone 3 given its proximity to the watercourse Biddulph Brook that runs alongside the eastern side of the treatment works.

The statutory Development Plan for the area comprises of the Staffordshire Moorlands District Council Core Strategy (March 2014) which designates the site as being located within the Green Belt outside of the Biddulph defined settlement boundary. The emerging Staffordshire Moorlands Local Plan Site Allocations Document which is currently subject to public consultation until 13 June 2016 also identifies the site as Green Belt. In addition the emerging site allocations plan also identifies land immediately adjacent to the west and east of the site for housing development (sites BDO62 and BDO68). Examination of the Site Allocations Document is not expected until Spring 2017.

Requirement for an EIA

Under Part II, Section 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (the Regulations) a person who is minded to carry out development may request the relevant planning authority to adopt a screening opinion as to whether that development is EIA development.

The Regulations require that a screening opinion request be accompanied by a plan sufficient to identify the land; a brief description of the development and its possible effects on the environment; and such other information or representations as the person making the request may wish to provide or make. This letter and the enclosed plan (Biddulph WwTW Location Plan) comprise such a submission.

In determining whether or not the proposed development requires EIA, the local planning authority (in this case the local waste authority) is required to follow Part II, Section 4 of the Regulations and the relevant schedules. Guidance on '*Screening Schedule 2 projects*' and the EIA process is provided in the National Planning Practice Guidance (PPG) at ID: 4-017-20140306 and a flowchart of the EIA Screening process can be found in the PPG (ID: 4-030-20140306).

As you will be aware, section 5 (5) of the Regulations states that the local planning authority shall adopt a screening opinion within three weeks of the date of receipt of a request, and we look forward to receiving a response within this timescale.

Consideration of the development against the Regulations is set out in the sections below.

Description of the Development

The proposed development comprises an array of freestanding ground mounted solar panels which would generate up to 250kW of electricity from a renewable source and would feed directly into the waste water treatment plant to meet part of its electricity demand. Surplus electricity will only be exported to the local distribution network when demand from the works is lower than that generated from the solar array. This is likely only to occur when parts of the works are turned off for maintenance and inspection.

The ground mounted solar panels would be arranged in rows comprising a series of panels facing south. Each panel would be inclined to between 20 and 30 degrees with the lower part approximately 60-80cm from ground level, and the highest part up to 3m from ground level. The panels would be mounted on aluminium frames supported by upright poles which will be driven into the ground. No concrete foundations are required and little excavation is therefore necessary. The distance between each row of panels would be between 4m and 6m to avoid the potential for overshadowing.

Up to one switchgear unit will be required. It is anticipated that this unit would be 4.6m in length, 2.5m in width and 2.6m high.

An electrical substation, where the output from the solar array would be exported in periods of low demand and high generation would be located on the site and is likely to be located in close proximity to existing buildings within the works. It is anticipated that this substation would measure approximately 5m in length, 3.5 in width and up to 4m in height. The materials and colour used for this element would be sympathetic to the surroundings

CCTV may be positioned at regular intervals along the site boundary, typically at every 100 metres and these will be on poles approximately 4 meters in height. Any additional security fencing required would comprise 2m high fencing erected along existing perimeters where possible to take advantage of existing boundary lines and features. This infrastructure can be sensitivity designed and sited to avoid any unacceptable impacts on the residential amenity of nearby residential properties.

Access to the site for construction would be taken via the existing wastewater treatment works access from Marsh Green Road.

The solar array is expected to have an operational life of approximately 25 years and would be unmanned during typical day to day operation.

Potential impacts of the development

The regulations require that any request for a screening opinion should be accompanied by a brief outline of the potential impacts of the development. For the proposed solar array development the potential impacts are considered to be:

- Landscape and visual:

  The maximum height of the solar panel arrays is anticipated to be only 3m and in reality the panels are likely to be no more than 2.2m high. The maximum height of the other elements of the scheme for example the CCTV poles, would be approximately 4m. Existing areas of mature vegetation and existing boundary treatment would provide some screening of the low level solar panels in addition to the screening provided by the treatment works infrastructure itself and other built development in the area. The landscape and visual effects of the solar array are therefore likely to be limited given the potential visibility of the development proposed and its location within an urban fringe location.

  The development would seek to maximise retention of existing trees and boundary treatment to maintain the screening that they afford. The panels would be viewed in the content of the treatment works and as such would not be out of keeping in landscape terms.

- Ecology:

  The nature of the development allows for the retention of any habitats of ecological interest below the solar panels where appropriate. Some impacts could arise through the removal of a limited amount of habitat, in particular with relation to existing trees and shrubs.

There are no ecological designations covering the site or immediately adjoining the site. United Utilities will commission extended Phase 1 ecological surveys of the working areas along with any recommended habitat and species specific surveys. United Utilities will obtain any licences required and shall implement mitigation measures, as appropriate to the surveys' findings. United Utilities is of the opinion that, by applying best practice and establishing and enforcing a contractor's site-specific environmental management plan during construction, there will be no significant deleterious ecological effects. The use of reasonable avoidance measures to avoid impacts on identified sensitivities e.g. Biddulph Brook will be implemented. Any indirect effects are not likely to be significant given the limited land take associated with the proposed development.

- Cultural Heritage and Archaeology:

  A solar array development could potentially impact indirectly on the setting of cultural heritage assets, such as scheduled ancient monuments and listed buildings, and could potentially result in impacts upon undiscovered archaeological remains.

  Given the separation distance to the nearest cultural heritage assets, intervening vegetation and built development it is not considered that the proposed development would lead to any significant adverse effects on the setting of any heritage assets.

  The scheme is unlikely to have any significant adverse impacts on undiscovered archaeological remains due to the fact that the site forms part of an operational treatment works and the solar array does not involve significant foundation work.

- Noise and Vibration:

  There is the potential for noise and vibration impacts during the construction of the solar array development. However, given that these would be limited to the construction period alone these are not considered likely to be significant. Operational noise is likely only to occur from the inverter structure, although this is not anticipated to be significant on the basis that the inverter would produce a low level of noise and would be located within an acoustically insulated structure meaning that any generated noise would not exceed 35db at the site boundaries. In addition, the position of the inverter within the site can be sensitively sited to maximise separation distances to the nearest residential properties. It is also noteworthy that solar panels only operate during daylight hours, and will not therefore generate any noise during twilight hours. No potential noise impacts are therefore anticipated, although as an additional precaution the inverter would be positioned to maximise the separation distance from residential properties.

- Flood Risk

  The panels would be mounted on frames secured to the ground via piles which occupy a very small percentage of the overall site area, and would not therefore have any significant detrimental effect on the permeability of the overall site. On this basis the proposed development would not contribute to increasing runoff rates. There would be no significant increase in surface water discharge rate arising from the proposed development and the proposed infrastructure would result in a nominal displacement of flood plain capacity which is not significant. On this basis flood risk will be minimised.

- Cumulative Impacts

  The proposed development could have cumulative impacts if there are any other proposed or consented solar array schemes in the area and any other developments which could lead to

cumulative impacts, particularly in relation to landscape and visual impacts. We are not aware of any nearby proposals which might reasonably be considered to create potential cumulative effects.
Whilst the emerging local plan allocates the land surrounding the site to the east and west for residential development, this plan is at an early stage and has not been subject to full examination. As such no weight can be given to the likelihood of these sites coming forward as 'committed development' in EIA terms.

Consideration against Environmental Impact Assessment (EIA) Regulations

The EIA regulations detail development in two Schedules. These are:

- Schedule 1 – identifies development types *requiring* EIA;
- Schedule 2 – identifies development types where, if the relevant threshold criteria are exceeded, a formal assessment must be undertaken against Schedule 3 in order to determine whether an EIA is required.

The proposed solar park does not fall within any of the categories within Schedule 1.

Schedule 2 of the regulations details development types where an EIA could be required, subject to certain thresholds being exceeded and subsequent screening against Schedule 3 of the regulations. Solar array development does not fall within any specific category within Schedule 2, although the most appropriate category is considered to be 3 (a) which states:

- Energy industry

  3 – (a) Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1);

Development proposals described under Schedule 2 require an EIA if they are considered to have a significant impact upon the environment by virtue of factors such as nature, size and location. The relevant threshold as to whether or not the site needs to be screened for EIA is 0.5ha, where the site is not in a 'sensitive area' as defined in the regulations.

PPG (Paragraph: 018 Reference ID: 4-018-20140306) highlights that:

> *'Only a very small proportion of Schedule 2 development will require an assessment. While it is not possible to formulate criteria or thresholds which will provide a universal test of whether or not an assessment is required, it is possible to offer a broad indication of the type or scale of development which is likely to require an assessment. It is also possible to provide an indication of the sort of development for which an assessment is likely to be unnecessary...However, it should not be presumed that developments above the indicative thresholds should always be subject to assessment, or those falling below the thresholds could never give rise to significant effects, especially where the development is in an environmentally sensitive location. Each development will need to be considered on its merits.'*

Schedule 3 of the EIA regulations contains the criteria against which Schedule 2 development should be screened. In such circumstances, Part II, section 4 (6) of the Regulations requires the local planning authority to take into account "...such of the selection criteria set out in Schedule 3 as are relevant to the development...". This assessment is set out below.

(1) Characteristics of the development

a) the size of the development;

The proposed development would cover in total, an area of approximately 0.6ha comprising ground mounted solar panels on stands with an overall structure height of between 0.6m at their lowest point and 3m maximum height. Given the relatively low height of the proposal and existing screening, it is considered that the development would be well contained within the local landscape.

b) the cumulation with other development;

No other similar development has been identified close to the site which would result in significant potential impact that would require an EIA to be carried out.

c) the use of natural resources;

The proposed development is a renewable energy scheme which will assist the UK in achieving its legally mandated targets.

d) the production of waste;

The development in itself would not generate waste when operational. Minimal waste would be generated during construction, but this is not considered to be significant. Recycling of some components upon decommissioning is possible.

e) pollution and nuisances;

With the exception of the small on-site electrical housing units, the proposed development does not require the use of significant concrete foundations or any other potential pollutants during its operation. Nuisance could potentially occur through noise impacts on nearby residents. However, this can be mitigated through careful siting of the transformer unit and is not therefore considered likely to be a significant issue.

f) the risk of accidents, having regard in particular to substances or technologies used.

In terms of the EIA regulations the potential risk of accidents which could impact upon the environment is considered to be extremely low.

2) Location of development

a) the existing land use;

The existing land use is operational land associated with the waste water treatment works.

b) the relative abundance, quality and regenerative capacity of natural resources in the areas;

The proposed development would employ the use of sunlight and daylight for the generation of electricity, an energy source which is abundant. Given the relatively unobtrusive construction methods used for solar array development, the land would regenerate quickly following the cessation of the solar use.

c) the absorption capacity of the natural environment;

The surrounding area is suitable for this development given the limited height of the solar panels proposed. It is considered that the environment has the capacity to suitably absorb this development into the landscape fabric, particularly given the lack of other similar projects in the area impacting upon its capacity for further development.

3) Characteristics of the potential impacts

a) the extent of the impact (geographical area and size of the affected populations);

The extent of the potential impacts would generally be limited to the site and the immediate surroundings given the relatively low level nature of the development. Views of the development would not be significant on the locality or wider area.

b) the transfrontier nature of the impact;

No transfrontier impacts are anticipated.

c) magnitude and complexity of the impact;

The proposed development is unlikely to have any significant effects on the nearest residential properties or cultural heritage features. There are no national ecological designations on the site or immediately adjoining it.

d) the probability of the impact

All of the potential impacts are quantifiable. None of the potential impacts are considered to be significant enough to require an EIA.

e) the duration, frequency and reversibility of the impact.

The proposed solar array development would be operational for 25 years, with any impacts fully reversible upon the cessation of operation.

Conclusion

Consideration of the proposed development against the Environmental Impact Regulations 2011 and the PPG has determined that the proposal is unlikely to result in significant effects on the environment. Consequently, it is our opinion that an environmental impact assessment is not required.

I trust that the above information is sufficient to enable you to issue a screening opinion within the statutory three week period allowed for this task.

If you require any further clarification, please do not hesitate to contact me.

Yours sincerely

David Palmer
Associate Director