Briefing Note

Project:	**Premier Foods Bakery, Carlton– Proposed Solar Farm**	**Date:**	**7 September 2023**
Subject:	**EIA Screening**	**Reference:**	**277101**

Introduction

Background

Premier Foods Plc is applying to Barnsley Metropolitan Borough Council for full planning permission for the installation of a solar farm of up to 2MW generating capacity, sub-station and associated infrastructure and erection of perimeter fencing and CCTV posts at Premier Foods Bakery, Fish Dam Lane, Barnsley, S71 3HF. This note reviews the proposed development in accordance with the screening procedures laid out in Part 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended; hereafter the EIA Regulations) to determine whether it constitutes an environmental impact assessment (EIA) development.

Site description

The 2.87-ha site lies in Carlton, to the north east of Barnsley (figure 1). It is located within the Premier Foods estate, immediately to the north east of the Carlton Bakery factory and south of Shaw Lane. Access to the site is gained via the adjacent bakery site by the existing access road from Fish Dam Lane to the west. The site comprises an area of grassland, with scrub and hedgerows at the edges. There are no public rights of way on site.

The disused Barnsley Canal and fields lie to the north of Shaw Lane, with the settlement of Royston beyond. There are dwellings to the west of the site and beyond the bakery, with Carlton Primary School and Carlton Industrial Estate further west. There is an area of open greenfield land to the east of the site, with six dwellings that are accessed from Shaw Lane. Further east are a railway line and Shaw Lane Works, which contains a number of industrial premises. To the south of the site is an area of grassland within the Premier Foods estate, beyond which are open fields and several large warehouses.

There are no environmental designations on the site. The Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) and Carlton Marsh Local Nature Reserve (LNR) lie approximately 340 m to the east of the site, on the opposite side of the railway line. Barnsley Canal Local Wildlife Site (LWS) is around 200 m to the north. Carlton conservation area, which contains the grade II listed Church of St John, The Gables, and Manor House, is approximately 320 m to the west of the site.

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The proposed development

It is proposed to develop the site with a solar farm of up to 2MW capacity, which will provide up to 50% of the bakery's power needs. Excess energy will be fed back into the local grid. The solar farm will comprise the following elements:

- Installation of up to 2MW solar photovoltaic (PV) arrays at 2.5 m in height, in rows 3.5 m apart
- Installation of a sub-station/transformer
- Ancillary underground cabling works
- Erection of 2.4 m high mesh weld perimeter fencing, moss green in colour, to secure the solar PV arrays
- Installation of a double leaf gate to provide secure access to / from the Premier Foods Bakery site in the south western corner of the site
- Installation of six CCTV posts up to 6m in height, one at each corner of the site and two in the centre for security
- A minimum 5 m wide ecological buffer with a 6m buffer around the ash tree and a 10m ecological buffer along the eastern boundary
- Landscape screening in the form of additional planting of native scrub, including hawthorn, blackthorn, hazel, wild cherry and hornbeam, around the site boundary and trees, including silver birch, hawthorn and wild cherry, along the eastern boundary
- Sowing of species-rich wildflower grassland below the solar panels and tussocky grassland on the inner edge of the perimeter buffer zone to improve biodiversity

Screening

Introduction

The EIA Regulations categorise various development types as 'schedule 1', for which EIA is mandatory, or 'schedule 2', for which EIA is only required if the development is likely to have significant environmental effects. The proposed development is not of a type listed under schedule 1. Stand alone solar PV panels are also not specifically listed in schedule 2. However, as the proposed development's principal purpose is the production of electrical energy, it considered that it falls under schedule 2, section 3a: Energy industry: industrial installations for the production of electricity, steam and hot water.

Where a proposed development is covered by schedule 2, the next stage of the screening process is to identify whether the proposed development is located in a sensitive area. The application site does not fall within any of the sensitive areas listed in the EIA Regulations, so the next stage is to examine the relevant applicable thresholds for the type of development proposed. The applicable threshold for section 3(a) developments is *"the area of the development exceeds 0.5 ha."* The site area is approximately 2.87 ha, which exceeds this threshold, so the requirement for EIA rests on whether the proposed development will have significant environmental effects.

Potential for significant effects

Introduction

Schedule 3 of the EIA Regulations sets out a series of selection criteria to be used in screening schedule 2 developments. These relate to the development's characteristics, the environmental sensitivity of the geographical areas likely to be affected, and the types and characteristics of the potential impacts. The assessment of the potential for the proposed development to lead to significant environmental effects has been informed by these criteria.

Indicative thresholds

The Ministry of Housing, Communities and Local Government's (MHCLG) web-based National Planning Practice Guidance: Environmental Impact Assessment (updated May 2020) includes an annex that sets out a series of indicative thresholds relating to the size and scale of the various types of schedule 2 development that may result in significant effects on the environment, thus requiring EIA. For section 3(a) developments, the guidance states that EIA is more likely to be required for schemes with a thermal output of more than 50 MW. The proposed development is well below this threshold at only 2MW.

The guidance also notes that, for section 3(a) developments, key issues to consider include the level of emissions to air, arrangements for the transport of fuel, and any visual impact. In addition, the MHCLG's National Planning Practice Guidance: Renewable and Low Carbon Energy (March 2015) includes guidance on the particular planning considerations that relate to large scale ground-mounted solar PV farms. Those relevant to the potential for significant environmental effects are examined below, together with other additional relevant environmental issues.

Traffic and transport

Construction traffic movements will be controlled through a construction traffic management plan (CTMP), which is appended to the construction environmental management plan (CEMP) submitted in support of the planning application. Measures to control construction traffic include restricting delivery timings to outside peak hours and school drop-off and pick-up periods, and setting a designated route for construction traffic to access the site from the A628 via West Green Way and Fish Dam Lane.

The Institute of Environmental Management and Assessment's (2023) *Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement* indicate that significant effects are not likely to arise where traffic flows increase by less than 10%. As set out in the transport statement submitted in support of the planning application, it is estimated that approximately 96 HGV movements (48 each way) will be required in total over the 24-week construction period. The number of deliveries per week will vary but, on average, the construction phase is anticipated to generate between two and six deliveries per week (four to 12 HGV movements). In addition, 10-15 construction workers are likely to be employed on the site during the construction period, who may access the site by car.

These negligible numbers of predicted HGV and other vehicle movements mean that the 10% threshold set out in the IEMA guidance is not likely to be exceeded on Fish Dam Lane, West Green Way or the A628. No significant effects are therefore predicted as a result of increased traffic during construction. Post-construction traffic movements will be limited to routine maintenance activities, which are envisaged to comprise one visit to the site per month by a small van. No significant effects are therefore predicted from increased traffic during the operation of the proposed solar farm.

Air quality

The site does not lie within an air quality management area (AQMA). Guidance[1] suggests that assessment is not required if traffic flows will increase by fewer than 100 HGVs or 500 other vehicles (annual average daily traffic) outside AQMAs. As set out in the traffic section above, both construction and post-construction traffic movements are predicted to be well below these thresholds. As a result, no significant effects are predicted from traffic-related emissions.

There is the potential for construction activities to generate temporary dust emissions. However, the distance of the nearest sensitive receptors from the site and the nature of the construction activities associated with solar farm development mean that the risk of dust generation is low. Standard and proven methodologies will be put in place through the CEMP to minimise dust generation and no significant effects are predicted.

Landscape and visual effects

There are no designated landscapes in the vicinity of the site. The proposals will introduce solar farm development to a currently undeveloped site. However, the character of the surrounding area is a fragmented mix of industrial, residential and agricultural uses, so a solar farm will not be out of character in this context. Very limited amounts of vegetation within the site will be removed, the underlying grassland will be retained, and proposed new hedgerow, tree, scrub and marginal planting will be provided. While some aspects of the site's landscape character will therefore be altered, these changes will be reversible at the end of the development's life. No significant effects are therefore predicted on landscape character, either on the site or in the surrounding area. This conclusion is confirmed by the landscape and visual appraisal submitted in support of the planning application.

The existing hedgerows and scrub along the site boundaries provide a substantial amount of screening, particularly of views from the north, west and east. In addition, the new proposed planting will further strengthen the existing screening. The landscape and visual appraisal submitted in support of the planning application identifies that the proposed development's zone of theoretical visibility is limited to within 2 km of the site and largely centred on agricultural fields to the west of the villages of Cudworth and Shafton. The existing and proposed vegetation will ensure that there will be negligible changes to views from Royston Road, Shaw Lane, public rights of way in the area and Rabbit Ings Country Park. There may be a small number of residents with views available from the edge of Carlton and Upper Cudworth, but these views will be limited by the existing mature vegetation and any changes will be

[1] EPUK and IAQM, 2017, *Land-Use Planning & Development Control: Planning for Air Quality.*

small. The landscape and visual appraisal does not predict any significant adverse visual effects as a result of the proposed development.

Cultural heritage

There are no scheduled monuments or registered parks and gardens within 2 km of the site. Carlton conservation area, which contains the grade II listed Church of St John, The Gables, and Manor House, is approximately 320 m to the west. However, the site does not form part of the immediate setting of these heritage assets and the screening provided by intervening buildings and vegetation means that no significant effects are predicted on their setting as a result of the proposed development.

In its response to the pre-application consultation (dated 23.05.23), South Yorkshire Archaeology Service confirmed that *"the site held negligible significance"* for archaeology and that *"archaeological matters can be scoped out from any further consideration for this scheme."* No significant archaeological effects are therefore predicted.

Glint and glare

PV panels are specifically designed to absorb light and minimise the amount of reflected light, which also reduces the potential for glint and glare. As discussed in the landscape and visual section above, the existing vegetation and proposed planting will largely screen the panels from nearby roads and dwellings, meaning that significant nuisance from glint and glare is not likely. The glint and glare assessment submitted in support of the planning application confirms that no significant effects are predicted on road safety, residential amenity or aviation activity associated with Yorkshire Air Ambulance Nostell Helicopter Port, and no mitigation is required.

Land use and land take

The site is provisionally classified as grade 3 (good to moderate quality) agricultural land, which is not currently in agricultural production. The underlying soil resource will be largely undisturbed by the construction of the solar farm, with the exception of the installation of the cables and frames, and will therefore retain its agricultural potential. Given this, and the small area of land affected by the proposed development, no significant land use and land take effects are predicted.

Natural heritage

The Dearne Valley Wetlands SSSI and Carlton Marsh LNR are approximately 340 m to the east of the site, on the other side of the railway line. Barnsley Canal LWS is around 200 m to the north, beyond Shaw Lane. The proposed development will not directly impact the designated sites. The distance of the site from the designated areas and the implementation of a range of mitigation measures, as discussed in the noise and water environment sections below, means that no significant effects are predicted on the SSSI / LNR and the LWS from disturbance or pollution during or post-construction.

The SSSI / LNR is an important site for birds, including gadwall, shoveler, willow tit, black-headed gull, bittern, garganey, lapwing, redshank and avocet. The small areas of scrub and the grassland on site are not considered to be important nesting habitat for birds due to the presence of larger, more favourable nesting areas in the vicinity

and the length of the grassland sward. In addition, many of the bird species that use the SSSI / LNR rely largely on wetland habitat, which is not present on site. As a result, no significant effects are predicted on the bird species using the SSSI.

The dominant habitat on site is neutral grassland of low ecological value. This will be largely retained by the proposed development and no significant effects are predicted on this habitat. There is an area of mixed scrub on the site's southern boundary, and areas of bramble scrub on the north western boundary and in the south west of the site. These are of low ecological importance. The scrub along the site boundaries will be retained, although the small area in the south west will be lost. However, the low ecological importance of this habitat means that this loss will not be significant. A hedgerow extends along the site's eastern and northern boundaries. This is a priority habitat that will be retained as part of the proposed development. A minimum 5 m wide ecological buffer with a 6m buffer around the ash tree and a 10m ecological buffer along the eastern boundary will be retained around the site perimeter and root protection zones for all trees and hedgerows will be demarcated with Heras-type fencing to safeguard them from accidental damage during construction. No significant effects are therefore predicted on the site's habitats.

No evidence of badgers was identified at the site. Surveys confirmed that the trees on site have negligible suitability for roosting bats. The hedgerows and scrub along the site boundaries provide low suitability for foraging and commuting bats. There is the potential for great crested newts from a nearby pond to be using the terrestrial habitats on the site. The habitats on the site also have the potential to support common reptiles, breeding birds and hedgehogs. A range of measures will be put in place through the CEMP and Herpetofauna Method Statement to ensure that there will be no significant adverse effects on these species during construction, including before and during vegetation clearance. The retention of the hedgerow and the majority of the scrub on site means that no significant effects are predicted on protected or priority species during the operation of the solar farm. These conclusions are confirmed by the ecological assessment work submitted in support of the planning application.

Noise

There is the potential for construction activities to generate temporary noise, but standard and proven methodologies are available to minimise adverse effects, as set out in the CEMP submitted in support of the planning application. With these measures in place, no significant construction noise effects are predicted. As discussed in the traffic section above, measures will be put in place through the CTMP to control construction traffic movements, and the limited number of movements expected both during and post-construction means that no significant effects are predicted from increased traffic noise.

The electrical equipment (transformers and inverters) associated with an operational solar farm emits a low level of noise during the generating period (daylight hours), which can be audible in the immediate vicinity. However, as set out in the noise assessment submitted in support of the planning application, noise from the solar farm is predicted to be either at or below background levels at the nearest residential properties to the site. No significant effects are therefore predicted from operational noise.

Ground conditions and the water environment

The nearest watercourse to the site, which is in flood zone 1, is the disused Barnsley Canal to the north of Shaw Lane. The Environment Agency's online flood mapping[2] shows that the site is predominantly at very low risk of surface water flooding, with an area at medium to high risk along the southern boundary. It is not within a groundwater source protection zone, but it is underlain by bedrock that is a secondary A aquifer and is classified by the Environment Agency as being of high vulnerability.

Standard and proven construction methodologies, such as those set out in CIRIA (2001) *C532 Control of water pollution from construction sites. Guidance for consultants and contractors* will be put in place through the CEMP to minimise the potential for adverse effects on water quality during construction. Greenfield runoff rates will be maintained by the proposed development post-construction, as set out in the flood risk assessment submitted in support of the planning application, and no significant effects are predicted on the water environment.

The site is greenfield and there are no existing or historic industrial uses on or in the vicinity of the site that would have the potential to lead to high levels of contamination. Appropriate working practices, including the use of personal protective equipment as necessary, will be put in place during construction through the CEMP. As a result, no significant risks to human health or the water environment are predicted from the potential for mobilisation of existing contamination by the proposed development.

Cumulative effects

Schedule 3 of the EIA Regulations requires the potential for cumulation with other existing and / or approved development to be considered. The existing baseline has been examined in the topic sections above and there are no large-scale developments approved in the vicinity of the site that could lead to the potential for significant cumulative effects.

The site is located within allocation MU3: Land off Shaw Lane Carlton in the adopted Barnsley Local Plan (January 2019), which proposes a mixed use development including housing and green space, subject to the production of a phased Masterplan Framework. The Carlton Masterplan Framework, which was adopted in November 2021, identifies the site in an area safeguarded for Premier Foods expansion. The proposed development is not dependent on the remainder of the allocated area for its delivery. As it can proceed independently of the rest of the allocation, the proposed development should be screened on its own merit in accordance with the guidance set out in paragraphs 024 and 025 of the MHCLG's National Planning Practice Guidance: Environmental Impact Assessment (updated May 2020) and the potential for cumulative effects with the rest of the MU3 allocation does not need to be considered.

[2] https://check-long-term-flood-risk.service.gov.uk/.

Conclusion

Having examined the proposed development against the criteria set out in schedules 2 and 3 of the EIA Regulations, as well as against the indicative thresholds listed in the MHCLG's web-based guidance, it is considered that the proposed development is not likely to lead to significant environmental effects. It is therefore concluded that the proposed development is not EIA development and EIA is not required.

Site boundary

Other land in ownership of applicant

Carlton
Premier Foods

0 100 m

N

Figure 1 - Site Location Plan

Dwg no/277101/001	Revision
Status	24 August 2023
Scale: 1:2,500 @A2	Drawn by: JC / Checked by: ZA

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