APPLICATION NO  PA/2015/0434

APPLICANT  INRG (Solar Park) 21 Ltd

DEVELOPMENT  Planning permission for installation of ground-mounted solar arrays with transformer stations, internal access track, biodiversity improvements, landscaping, security fencing, security measures, access gate, temporary construction compound and ancillary infrastructure

LOCATION  Land adjacent to Flixborough Industrial Estate, Stather Road, Flixborough

PARISH  FLIXBOROUGH

WARD  Burton Stather and Winterton

CASE OFFICER  Scott Jackson

SUMMARY RECOMMENDATION  Grant permission subject to conditions

REASONS FOR REFERENCE TO COMMITTEE  At the discretion of the Head of Development Management

POLICIES

National Planning Policy Framework: The NPPF encourages sustainable development. Section 10 requires decision-makers to consider climate change, flooding and coastal change. Section 11 requires decision-makers to consider conserving and enhancing the natural environment. Section 12 requires consideration of heritage issues.


North Lincolnshire Local Plan: Policies DS1 (General Requirements), DS21 (Renewable Energy), DS11 (Polluting Activities), DS13 (Groundwater Protection and Land Drainage), DS14 (Surface Water Drainage), DS16 (Flood Risk), RD2 (Development in the Open Countryside), RD7 (Agriculture, Forestry and Farm Diversification), T1 (Location of Development), T2 (Access to Development), LC2 (Sites of Special Scientific Interest and National Nature Reserves), LC5 (Species Protection), LC7 (Landscape Protection), LC12 (Protection of Trees, Woodland and Hedgerows), HE5 (Development affecting Listed Buildings) and HE9 (Archaeological Evaluation), M18 (Silica Sand Future Supply), M19 (Silica Sand Future Extraction) and IG5 (Footpaths and Cycleways) apply.

North Lincolnshire Core Strategy: Policies CS1 (Spatial Strategy for North Lincolnshire), CS2 (Delivering More Sustainable Development), CS3 (Development Limits), CS5 (Delivering Quality Design in North Lincolnshire), CS6 (Historic Environment), CS17 (Biodiversity), CS18 (Sustainable Resource Use and Climate Change), CS19 (Flood Risk) and CS21 (Minerals) apply.
Supplementary Planning Document: Planning for Renewable Energy Development states that solar farms are becoming increasingly commonplace in the UK, particularly in southern and central England. This document sets out the planning considerations in respect of environmental impacts, cumulative impacts and policy considerations.

Draft Planning Document (Planning for Solar Photovoltaic Development), which at the time of writing is out for public consultation, expands on existing local planning policy and sets out a clear planning policy framework for developers, communities and decision-makers on those issues that need to be addressed as part of any proposal for solar PV arrays. These considerations include:

- communities;
- site selection and agricultural land;
- landscape and visual impacts, including cumulative impacts;
- impacts on heritage, biodiversity, flood risk and drainage and public rights of way;
- managing impacts from glint and glare;
- provision of site security;
- managing the impacts of construction and groundworks;
- decommissioning.

CONSULTATIONS

Highways: No objection, but advise a condition in respect of a phased traffic management plan. This traffic management plan should consider the comments made by the council’s traffic team.

Severn Trent Water Ltd: No objection.

Environment Agency: Recommend a condition that a scheme be submitted to demonstrate that all sensitive equipment is set at or above 3.5 metres AOD.

NATS: No safeguarding objection.

Public Health: No objections.

Humberside Airport: No objection – doesn’t conflict with safeguarding criteria.

Robin Hood Airport: No objection.

Environmental Health: Recommend conditions in respect of the investigation of unexpected contamination, construction hours and noise levels once the solar farm is operational.

Network Rail: No objection.
Highways Drainage: Following confirmation that a swale will be provided along the southern and south-western boundaries and acknowledgement of riparian responsibilities, no objection is raised.

Ecology: Following receipt of additional information (revision to Phase 1 Habitat Survey and Winter Birds Survey) no objection subject to conditions relating to a revised landscape and ecological management plan and implementation of the plan.

Historic Environment Record (Archaeology): The eastern half of the application site has the potential to contain multi-period archaeological remains including burials and cremations similar to those found immediately adjacent to the site; the site may also contain evidence associated with the Flixborough Saxon scheduled monument. The applicant has proposed a mitigation strategy avoiding any significant ground disturbance within the archaeologically sensitive area in order to preserve the archaeological remains in situ. No further objection to the application subject to conditions that secure the implementation of the agreed mitigation strategy.

Environment Team (Trees and Landscape): Need to confirm whether the trees in the centre of the site will be protected during construction and recommend a condition in respect of a planting scheme and maintenance of the planting.

PARISH COUNCIL

No objection.

PUBLICITY

Neighbouring properties have been notified, and site and press notices posted. One letter of objection has been received raising the following issues:

- additional renewable energy scheme in this area
- Flixborough is becoming an area of renewable energy development
- it is questioned whether the scheme will actually produce electricity.

ASSESSMENT

The application site consists of a number of agricultural fields (used for arable farming) and extends from Flixborough Industrial Estate (Stather Road) to the north and north-west to a small area of woodland known as Willow Holt to the south-east. The site extends to approximately 12.9 hectares in area and is bordered by a drain along its western and south-western boundary. The site is located 640 metres to the east of the River Trent and 810 metres to the north-west of the settlement boundary for Scunthorpe. The village of Flixborough is located approximately 620 metres to the north and north-east of the site. The site is bordered along the eastern boundary by public footpath FLIX 175 which runs a course in a north-easterly direction towards the village of Flixborough.

The main issues in the determination of this planning application are detailed as follows:
Principle of development

The proposal consists of the development of agricultural fields for a solar farm extending to 12.9 hectares to provide up to 4.992MW of electricity; the connection to the grid is within the site itself. The solar arrays would cover approximately 30% of the site area and measure 0.791 metres from ground level at the front edge and 2.312 metres at the back edge. The rows of panels will be separated by a distance of 5 metres and they will be tilted at an angle of 25° in order to capture maximum solar energy. 19,968 solar panels are proposed as part of the scheme. The associated infrastructure consists of inverters, substation, GRP (glass reinforced plastic) kiosk, cabling, a temporary site compound, a 2 metre high fence around the perimeter of the site, the installation of CCTV cameras for site security and landscape planting improvements.

The Climate Change Act 2008 sets a national legally binding target for UK countries to achieve an 80% reduction in greenhouse gas emissions by 2050 from a baseline of 1990. The European Renewable Energy Directive came into force in 2009 and the UK has agreed to source 15% of its energy from renewable sources by 2020. The UK has also set an aim in the UK Low Carbon Transition Plan 2009 to exceed the European targets by achieving 30% of its energy from renewable sources within the same timeframe.

The National Planning Policy Framework (NPPF) issued on 27 March 2012 is a material planning consideration in planning decisions with a presumption in favour of sustainable development. At paragraph 93 it states that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development. At Paragraph 17 it also states that planning should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change and to encourage the use of renewable resources (for example by the development of renewable energy).

The NPPF supports the use of brownfield land. Loss of high quality agricultural land should be resisted. This point is echoed in the recent written ministerial statement of 18 June 2015 which sets out the factors a local planning authority must consider when assessing large ground-mounted solar farms. This states that particular factors a local planning authority will need to consider include:

- where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays;

- encouraging the effective use of land by focusing large-scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value;

- that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;

- the proposal’s visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;
• the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;

• the need for, and impact of, security measures such as lights and fencing;

• great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large-scale solar farms on such assets. Depending on their scale, design and prominence, a large-scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;

• the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;

• the energy generating potential, which can vary for a number of reasons, including latitude and aspect.

This section of the report will focus on loss of agricultural land; the other issues raised in the bullet points listed above will be discussed in subsequent sections of this report.

Loss of agricultural land

The applicant submits that the energy produced from the scheme will be exported to the grid; the point of connection is within the site itself. No objections or comments have been received in relation to the application on the grounds that include the loss of agricultural land.

Agricultural land is classified as follows:

• Grade 1 - excellent quality agricultural land
• Grade 2 - very good quality agricultural land
• Subgrade 3a - good quality agricultural land
• Subgrade 3b - moderate quality agricultural land
• Grade 4 - poor quality agricultural land
• Grade 5 - very poor quality agricultural land.

Some consideration should be given to the emerging Solar PV Supplementary Planning Document (SPD) which is the subject of public consultation at the time of writing this report. In respect of loss of agricultural land it states that proposals on agricultural land falling within ALC grades 1, 2 and 3a, the best and most versatile land, will not be permitted. The Planning Practice Guidance requires that where a proposal involves greenfield land the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land. Although the SPD categorically states that development on higher grade land is not permitted, this is a draft document currently undergoing public consultation. In addition, the national planning guidance doesn’t
rule out the development of solar farms on higher grade agricultural land, provided it is justified.

The applicant has submitted an agricultural land classification document with the planning application. The conclusions of this report submit that the majority of the site comprises grade 3b agricultural land (81% of the site area) equating to 10.5 hectares, with the remainder of the site (19% of the site area) being of grade 3a, which equates to 2.4 hectares. The document states that the diversification of the agricultural business (by taking the land out of agricultural production) equates to 2% of the overall holding size and the proposals will not conflict with the operational requirements of the agricultural enterprise. The document also provides a viability case for the scheme, which states that the proposal would provide the farm business with an additional source of regular, predictable income, that incomes from crop prices and agriculture is volatile and unpredictable, that the impacts are not irreversible and the scheme would not compromise drainage capacity or soil quality. In conclusion, this document states that the proposal would take place on poorer quality land in this area. It is considered that the temporary loss of higher grade agricultural land (of which only 19% of the site is grade 3a – good) is justified in terms of the scheme producing renewable energy, biodiversity enhancements, representing a form of agricultural diversification and the fact that the impacts of the development, in terms of the land being used for agricultural purposes, are not irreversible.

The whole site lies in the open countryside and is classed as greenfield land, therefore policies RD2 and RD7 apply. Whilst a brownfield site would be preferred, it is considered that by the very nature of the scale of solar farms open countryside sites can be suitable. Policy RD2 is applicable and states that planning permission will only be granted for development which is for diversification of an established agricultural business, provided that issues pertinent to development in an open countryside location are addressed. These issues will be assessed in subsequent sections of this report.

Policy RD7 (Agriculture, Forestry and Farm Diversification) also applies and sets out the criteria for when development will be acceptable in principle. It is claimed that the proposal will not conflict with the operational requirements of the agricultural enterprise as the land can in theory be used for agriculture in between the panels. The applicant will retain 162 hectares for agricultural use, which in turn is part of a larger agricultural holding extending to 545 hectares in area. The impact on high quality agricultural land was assessed in a previous section of this report. No buildings are located on the site which could be re-used and the range of new buildings proposed on the site are both functional and commensurate to the scale of the proposal. The level of traffic generation will only be significant during the construction period, post construction it will be minimal. No parking is required to serve the proposal, other than a temporary compound during the construction period. For these reasons the proposal is considered to comply with policy RD7 of the North Lincolnshire Local Plan.

Policy DS21 Renewable Energy supports proposals for renewable energy provided that any detrimental effect is outweighed by environmental benefits. These impacts will be referred to in the next section but this policy shows that there is support for renewable energy in principle.

Environmental impacts

The application is accompanied by a number of supporting documents, which assess the environmental impacts of the proposal. The main environmental impacts identified are as follows:
Landscape and visual impact

Landscape and Visual Impact Assessment (LVIA) – This assessment is used to systematically identify and assess the nature and significance of the effects of a proposed development on the landscape as an environmental resource and on people’s views and visual amenity. The study area for the LVIA was a 5 kilometre radius around the site to ensure coverage of all sensitive areas and receptors. The site is located on land which is identified in the National Landscape Character Area Profiles (2014) as being on the eastern edge of the Humberhead Levels and close to the boundary of the North Lincolnshire Edge with Coversands. It is noted that the site has no formal landscape designation in the North Lincolnshire Local Plan. The site itself has no defining features other than a field ditch along the southern boundary and a line of electricity poles along the eastern side. The site forms part of a number of large, flat, open agricultural fields located to the east of the River Trent, towards the bottom of the escarpment. It is towards the foot of the Lincolnshire Edge scarp (to the east of the site) where the character of the area changes, becoming increasingly vegetated.

The LVIA identifies the nature and location of sensitive receptors to the site and sets out a Zone of Theoretical Visibility (ZTV) to analyse the extent and distance to which the development could theoretically be visible. This includes landscape designations, heritage assets, residential properties and publically accessible land. ZTV analysis uses terrain data only and doesn’t take into account any screening that vegetation or the built environment may provide. The site area in which the solar PV panels are proposed has been reduced along the eastern side in order to mitigate the impact on archaeology.

The site is well screened to the north and north-west by the range of buildings and structures located on the Flixborough Industrial Estate. These buildings are utilitarian and bulky in their appearance and vary in height from 10 metres to heights exceeding 30 metres. The buildings include industrial warehouses, cranes, silos, offices and plant/machinery. The site is afforded screening to the south-eastern corner by the mature woodland area known as Willow Holt and by a small cluster of trees to the north-eastern corner. The conclusions of the LVIA is that the visual envelope of the site and proposed development is greatly restricted by the localised natural and built topography and built form. Visibility is restricted by the scarp and tree-lined railway to the east, Flixborough Industrial Estate to the north and by the flood banks of the River Trent to the west. It concludes the main visual effects are localised and only experienced from Stather Road upon approach to the site, from the public footpaths at a distance of 450 metres and from a small number of houses and roads on the flat agricultural land to the south at a distance of 1.4 kilometres. There are very few publically accessible locations available in the wider landscape where the proposal would be visible. The assessment concludes that any visual change would reduce over time with the establishment of hedgerow and tree planting.

It is considered that the effects of the development will be localised, however it is accepted that views of the proposed development will be available from the public rights of way which border the site and which take a course towards the village of Flixborough. This settlement sits on an elevated ground position, atop the scarp edge.

A number of viewpoints have been selected (26 in total) which are considered to be representative of accurate views from various distances and sensitive receptors within the vicinity of the site. Some of the viewpoints (in particular those from the top of the slope) clearly show that the proposed solar farm will be visible in the centre of the view, with the woodland of Willow Holt framed to the south and Flixborough Industrial Estate to the north.
Most of the viewpoints show that the proposed solar farm will be viewed against the backdrop of man-made features, which includes the built form of Flixborough Industrial Estate and electricity pylons/lines. The views that are available from the network of public footpaths will be across a wide panorama with Flixborough Industrial Estate appearing to the north. In terms of views from the west and south-west the viewpoints show that the proposed solar farm will be visible to some extent, and the built framework of Scunthorpe (ie Skippingdale Industrial Park) appears in the distance to the south-east. The bank along the River Trent serves to screen views from Amcotts to the west. The solar panels will face a southerly direction, resulting in them being visible from Stather Road (on approach to the Flixborough Industrial Estate) from the south-west and from the B1216 which links Stather Road and Phoenix Parkway. This will be a transient view at a distance varying between 325 metres and 790 metres. These views would be of a transient nature and would be mitigated by planting over time. In winter, however, once the leaves have dropped, the site would still be visible, although views for car users would be fleeting. Other views would be long distance, largely where there are gaps with no intervening features. These views are considered to be acceptable.

A comprehensive landscaping scheme is proposed as part of the development, which seeks to mitigate the visual impact of the development upon the prevailing rural landscape whilst providing biodiversity enhancement and opportunities. In most views (ie within 1 kilometre of the site) the development would appear in the distance as a blue-grey field with some reflection of the sky similar to water reflection. Indeed the photomontages submitted with the LVIA show that the visual prominence of the scheme will be localised. This will be screened over time once the planting scheme has established.

In terms of cumulative impact, there would be no intervisibility between the proposed development and the solar farm completed along the northern side of the A18. It is noted that there is an operational wind farm at Bagmoor Farm located approximately 1.7 miles to the east of the site. These turbines are visible on top of the scarp edge. Views of the solar farm will be available from Stather Road (approaching from the west) with the development appearing in the foreground and the tips of the turbines appearing in the distance. There is intervening vegetation, electricity lines and dwellings between the proposed solar farm and the turbines. Again this view will be relatively localised and will be viewed in a landscape which has a line of electricity pylons which runs north to south beyond the position of the proposed solar farm. This landscape has been subject to engineered influences, which includes the substantial electricity pylons that traverse the site in a north to south direction, Flixborough Industrial Estate to the north and north-west and the wind turbines at Bagmoor Farm.

The viewpoints show that the proposed solar farm will be visible from the public footpaths which border the site. These footpaths are located adjacent to the site, therefore it is accepted that the solar panels will be visible.

It is accepted that the proposed development will have some extent of visual prominence, owing to its scale. However it is considered that the visual prominence and therefore the visual impacts of the proposed solar farm will be localised. It is accepted that the proposal is likely to be visible from local roads, public rights of way and in specific views from the windows of residential properties, however the landscape is not a static picture and is ever evolving through a combination of natural and man-made influences. The vast majority of views will result in the proposed solar farm being viewed against the backdrop of Flixborough Industrial Estate.
In order to generate this level of energy, a solar farm requires a large expanse of land, which should be relatively level and clear of obstructions which could introduce shadowing. Suitable sites of the required scale that are within defined settlement boundaries are limited and would typically be better suited for other uses such as residential, commercial etc in order to promote sustainable patterns of living and working.

On balance, whilst it would be visible from some viewpoints and would represent a new ‘commercial’ element in the landscape, it is considered that the development could be successfully assimilated into the surrounding landscape without any significant adverse impacts on visual amenity or the character or appearance of the area. With the implementation of the proposed mitigation consisting of planting and new management practices these impacts would be minimised. The use would be a temporary use, albeit for a period of 25 years, but the site would be returned to its former condition upon decommissioning. In summary, it is considered that the overall impact on the landscape character and visual impact would not be of such a significant level to warrant a refusal of the application.

**Archaeology and cultural heritage**

The Historic Environment Record initially objected to the scheme on the basis that the site contains potential for archaeological heritage assets of regional and potentially national importance. Following extensive discussions between the applicant and the council’s archaeologist a draft archaeological mitigation strategy has been submitted for consideration. This mitigation strategy sets out the measures which will be adopted for working in parts of the site which are considered to be of greater archaeological sensitivity. These measures include non-intrusive solar panel foundations, above-ground cable trays for the cables and the use of portable aluminium mats for the access roads. In addition a plan has been received which shows the areas of the site where these non-intrusive mitigation measures will be employed. This plan also shows a reduction in the site area in which the solar panels are proposed. Following receipt of the additional information, the council’s archaeologist has raised no objections subject to a number of conditions.

In terms of built heritage the nearest listed building is The Vicarage on the southern edge of Flixborough, located approximately 640 metres to the north of the site. The viewpoint photographic record submitted in the LVIA shows that due to intervening tree and hedge cover and the topography of the land, the proposed solar farm will only be visible in long distance views towards the village of Flixborough; none of the dwellings on the southern edge of the settlement are distinguishable from one another. The view out from this listed building (other than from upper floor windows) is obscured by intervening vegetation and by the Flixborough Industrial Estate. By virtue of the distances involved, the sloping nature of the land (with the solar farm located relatively low-lying in the landscape) and intervening vegetation, the proposal is considered to preserve the character, appearance and setting of the listed dwelling. There are three further listed buildings located within the settlement of Flixborough, however these buildings are within the main built framework of the village. Due to the presence of intervening buildings (ie the village of Flixborough) between the site and these listed buildings, it is concluded that views of the proposal will not be available, and the character, appearance and setting of these listed buildings will be preserved. It is worth noting that upon approach to Flixborough from Stather Road, these listed buildings are only visible upon entering the village; the proposal is not visible in the same vista as the listed buildings.
The LVIA has identified a Scheduled Ancient Monument or SAM (Site of Saxon Nunnery and Medieval Church) located to the east of the site, at a distance of approximately 600 metres. The viewpoint analysis shows that the view from the SAM will be in a north-north-west direction with an electricity pylon appearing in the foreground, Willow Holt to the north-west and Flixborough Industrial Estate in the centre of the vista, a significant distance away. Again the proposed solar farm will be viewed against the built framework of the industrial estate, within a landscape shaped by man-made influences. In addition it will be located in a flat, low-lying landscape. The proposal is not considered to result in an adverse effect on the SAM or its setting.

Ecology

An ecological assessment of the site was undertaken through a habitat survey, which sought to identify and verify the presence or absence of any protected species and designated sites in the vicinity of the site. Further work was identified by the council's ecologist and there was a requirement for updates to the original report and a wintering bird survey. Following receipt of this information the council's ecologist raised no objections to the scheme, but recommended conditions in respect of an updated Landscape and Ecological Management Plan, to ensure the necessary biodiversity enhancements across the site. Mitigation and enhancement is proposed in the form of additional hedgerow planting, the creation of a grassland mix within the site and the erection of fencing at a height of 2 metres around the perimeter of the site. This may have some restriction in terms of larger mammals such as deer, hares and foxes to access the site, however small mammals will be able to access the site for foraging purposes. The fencing could also result in some benefit to ground nesting birds as they would not be affected by ground predators.

In total it is proposed to plant 1.836 kilometres of new native hedgerow, which will be maintained at a height of 3 metres, thereby providing both biodiversity enhancement and a screening effect (over time). Additional biodiversity enhancements would be secured through the condition recommended by the council's ecologist, this includes bat boxes and nesting boxes for birds, access for badgers and improvements to existing hedgerows. Enhancement of biodiversity, when considering planning applications, is required by national and local planning legislation. These measures can be secured through a suitably worded condition. This is consistent with the recommendation of the council's ecologist.

Public rights of way

The site is bordered by a public footpath along its eastern and north-eastern boundaries. No public rights of way traverse the site. The public footpath which runs alongside the site will remain unaffected by the proposals and unobstructed, particularly during the construction phase. Fencing and planting is proposed along the boundary with the public footpath, and the footpath is the width of a single track and will therefore remain open for use during and post construction phases. No adverse comments have been received from the council's Public Rights of Way Officer.

Air quality

It is considered that the main contributing factor to air quality during the construction period would be exhaust fumes from HGVs visiting the site and dust from construction. The operation phase of the solar farm would not result in any issues relating to air quality. The maintenance vehicles visiting the site would be limited post construction and are not
considered to be a contributing factor to air quality. No further assessment is considered necessary in this case.

**Traffic/highways**

The applicant has submitted a Construction Traffic Management Plan with the planning application, which sets out proposals to control the impact of construction vehicles on the local road network during the construction phase of the proposed solar farm. The proposed access arrangements for the development are from Stather Road via the B1216. This will feed into a new priority junction onto Stather Road, to be located to the west of the field drain that runs through the site. Banksmen can be positioned at the entrance to the site in order to indicate when it is appropriate to enter and leave the site. It is proposed to erect signage at the site to warn road users of traffic entering and leaving the site and to give advance notice to HGVs to turn left out of the site.

The document states that the construction period will last approximately three months. The site working hours are proposed between 8am and 7pm Monday to Saturday. A maximum of 50 construction workers are anticipated on site during the construction period and HGVs, with a maximum length of 15.4 metres, will generate 90 trips to the site. A breakdown of the HGV movements during the construction phase is provided and it forecasts a total of 135 deliveries for the entire construction period, thereby resulting in an average of two deliveries a day. The following HGV movements are projected:

- 90 movements for solar components
- 2 movements for inverters
- 32 movements for access tracks
- 10 movements for site compound
- 1 movement for general deliveries.

No objections have been raised by the local highway authority in relation to the proposals and a condition is recommended in respect of a phased traffic management plan. It is noted that no traffic will pass through the village of Flixborough and will be directed along the existing HGV route between Flixborough Industrial Estate and Phoenix Parkway.

**Glint and glare**

Glint and glare may be produced as a direct reflection of the sun from the surface of the solar panels. Glare is a continuous source of brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Solar panels are designed to absorb, not reflect radiation, however the sensitiveness associated with glint and glare and the potential for landscape visual impact and aircraft safety is a material planning consideration. Humberside Airport and Robin Hood have raised no objection to the proposal on air safety grounds. It is considered prudent to recommend a condition that the solar arrays will have a non-reflective finish.
Flood risk and drainage

The applicant has submitted a Flood Risk Assessment (FRA) with the planning application. This document highlights that the site is located within flood zone 3(a). The FRA submits that the site is afforded protection by substantial and extensive flood defences, maintained by the Environment Agency, designed to withstand a 1:100 year flood event. It states that the site will become grassed over time and the soil properties will improve due to the absence of heavy farming machinery. The document states that the perimeter fencing will be raised 100 millimetres above the ground to allow movement of surface water, the increased amount of vegetation will reduce surface water run-off and that development for essential infrastructure is acceptable in flood zone 3(a) provided that the sequential and exceptions tests are applied and passed. The proposed use of the development is not considered to neatly fall within the flood risk vulnerability uses set out in the National Planning Practice Guidance. Therefore it could be reasonably argued that the proposal is in fact for development which is less vulnerable in its flood risk vulnerability classification; this would result in development being considered as appropriate in a high flood risk zone.

Notwithstanding the above comments, a sequential and exceptions test document has been submitted with the planning application. This document concludes that the sequential test is passed as there are no other suitable sites to satisfy the applicant’s site selection criteria and which have a viable grid capacity and are in single ownership. It is considered that the applicant has demonstrated sufficiently that the sequential test is passed, particularly as there is a grid connection directly on the site.

In terms of the exceptions test the applicant sets out their case and concludes that the proposal meets the criteria in respect of the following:

- Essentially, the two parts to the test require proposed development to show that it will provide wider sustainability benefits to the community that outweigh flood risk, and that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.

The applicant states that the proposal will deliver renewable energy which is supported by planning policy, it constitutes a sustainable form of development, will diversify the income of an established agricultural business, that the FRA demonstrates the proposal will not increase flood risk elsewhere, the site is safe from flooding with appropriate levels of flood defences and the sensitive equipment will be raised above the ground. In light of the submission of this document it is considered that the exceptions test has been passed in this case.

The Environment Agency has not objected to the proposal and recommends a compliance condition that all sensitive equipment associated with the solar farm can be installed above 3.5 metres AOD. In terms of surface water drainage the FRA states that the site will be prepared and seeded to allow a mixture of grasses to flourish. This provides a high level of surface water attenuation and more improved than with current, intensive farming practices and there is no requirement to introduce additional drainage channels or pathways.

The proposed method of surface water run-off appears to rely on infiltration through the ground (soakaways) and disposal via existing field drainage ditches. Whilst this is considered to represent a sustainable method of disposing surface water from the site, it is considered prudent to recommend a condition requesting details of the method of surface
water disposal. This will ensure that soakaways can be implemented successfully into the scheme, including details of run-off rates.

**Contamination**

No potential contamination of the site has been identified. However a condition is recommended to secure the investigation of any unexpected contamination found during construction works.

**Security and external lighting**

The proposals include provision for security lighting which will be to serve the buildings and structures (ie the substations and control room) for access purposes only; no additional lighting is proposed across the site. The site security measures consist of a number of CCTV cameras to be positioned along the boundaries of the site; these will have a maximum height of 3 metres. The security fencing will be constructed to a height of 2 metres and will be positioned along the boundary of the site. It is considered that the proposals for security lighting will not introduce issues in relation to lighting up of the night sky or impacting on wildlife. The extent of coverage and height of the CCTV cameras proposed across the site is considered commensurate to the scale of the development and necessary for security provision (expensive equipment and cabling).

**Noise**

The nearest residential property to the site is located at Park Ings Farm; this dwelling is positioned approximately 90 metres to the south. This dwelling is associated with the poultry farm and any noise will already be experienced from this existing use. The nearest cluster of properties is located in the village of Flixborough approximately 600 metres to the north. It is considered that the proposed construction period (three months in duration) will inevitably result in some noise and disturbance to residential properties. The applicant has taken steps to reduce the potential for noise impacts on residential properties by positioning the site compound to the south of the site and proposed site access arrangements via classified roads on the local highway network. This will avoid the potential disruption which would otherwise result from delivery vehicles using local roads through Flixborough. The proposed working hours of 7am to 7pm are broadly consistent with those recommended in a condition by Environmental Health, other than that on a Saturday where the applicant proposes to work until 7pm. It is considered prudent to recommend a condition to limit the level of sound emitted from the plant in the post-construction phase (operational phase) of development. The imposition of this condition recommended by Environmental Health is considered sufficient to protect residential amenity.

**Community involvement**

The applicant has submitted a Statement of Community Engagement with the planning application. This documents sets out the extent and type of community engagement that the applicant undertook prior to submitting the planning application. The method of community consultation included a leaflet drop to 303 properties and businesses in the vicinity of the site. One letter of support was submitted in response.
Conclusion

The provision of renewable energy is supported by national and local planning policy, provided that there are no significant environmental impacts which cannot be appropriately mitigated. It is considered that a countryside location is appropriate for this proposal and that on balance there would be no significant adverse impacts on visual amenity or local landscape character. The development would have no adverse effect on the local environment and would result in significant biodiversity enhancements, through a management regime that would encourage a wider range of flora and fauna to the site. The proposal would have no adverse impact on highway safety, residential amenity, flood risk or drainage. Therefore the application is recommended for approval.

RECOMMENDATION  Grant permission subject to the following conditions:

1. The development must be begun before the expiration of three years from the date of this permission.

Reason
To comply with section 91 of the Town and Country Planning Act 1990.

2. Within 25 years and six months following completion of construction of development, or within six months of the permanent cessation of electricity generation by the solar photovoltaic (PV) facility hereby approved, whichever is the sooner, the solar PV panels, frames, foundations, inverter, transformer buildings and associated infrastructure, and fencing shall be dismantled and removed from the site. The developer shall notify the local planning authority in writing no later than 28 days following cessation of power production. The site shall subsequently be restored in accordance with the approved restoration scheme no later than three months following the cessation of power production.

Reason
The application has been considered on the basis of a temporary period as set out in the planning application.

3. Within 12 months of completion of the development hereby approved a scheme for the decommissioning of the solar farm and restoration of the site to agricultural use shall be submitted to and approved in writing by the local planning authority. Such an approved scheme shall be implemented in accordance with the timescales set out in condition 2 above.

Reason
To ensure that the land, in its entirety, is returned to agricultural use and all works removed from the site when no longer required, in the interests of visual amenity in accordance with policies RD2, DS1 and DS21 of the North Lincolnshire Local Plan.

4. The development hereby permitted shall be carried out in accordance with the following approved plans: PV-0194-01 Revision 9, PV-0194-02, PV-0194-04, BRS.5842005 A, 1412-53 Figure 3.2 and 1412-53 Figure 3.4.
Reason
For the avoidance of doubt and in the interests of proper planning.

5. The construction method for the installation of PV solar panel support frames, the construction method for the site compound and the access track hereby approved shall use non-penetrating techniques as shown on drawing PV-0194-01 Revision 9 and the Archaeological Mitigation Strategy dated September 2015 and shall thereafter be retained.

Reason
The agreed scheme for non-intrusive methods is required in recognition of the archaeological importance of the site and to safeguard heritage assets, in accordance with policy HE9 of the North Lincolnshire Local Plan.

6. Development shall take place in accordance with the archaeological mitigation strategy (Ref September 2015/FS/BRS.5842). Within the areas of non-intrusive installation methods shown on the drawing, no ground excavation shall take place other than in connection with those works specified in the archaeological mitigation strategy.

Reason
To comply with policy HE9 of the North Lincolnshire Local Plan because the site lies in an area of archaeological interest.

7. No development shall take place until a written scheme of investigation for the programme of archaeological monitoring and recording of the excavation works specified in the archaeological mitigation strategy has been submitted to and approved in writing by the local planning authority. The strategy shall include details of the following:

(i) measures to ensure the preservation by record of archaeological features of identified importance

(ii) methodologies for the recording and recovery of archaeological remains, including artefacts and ecofacts

(iii) post-fieldwork methodologies for assessment and analysis

(iv) report content and arrangements for dissemination, and publication proposals

(v) archive preparation and deposition with recognised repositories

(vi) a timetable of works in relation to the proposed development, including sufficient notification and allowance of time to ensure that the site work is undertaken and completed in accordance with the strategy

(vii) monitoring arrangements, including the notification in writing to the North Lincolnshire Historic Environment Record of the commencement of archaeological works and the opportunity to monitor such works
(viii) a list of all staff involved in the implementation of the strategy, including subcontractors and specialists, their responsibilities and qualifications.

Reason
To comply with policy HE9 of the North Lincolnshire Local Plan because the site lies in an area of archaeological interest.

8. The archaeological programme of monitoring and recording shall be carried out in accordance with the approved details and timings, subject to any variations agreed in writing by the local planning authority.

Reason
To comply with policy HE9 of the North Lincolnshire Local Plan because the site lies in an area of archaeological interest.

9. A copy of any analysis, reporting, publication or archiving required as part of the mitigation strategy shall be deposited at the North Lincolnshire Historic Environment Record within six months of the date of completion of the development hereby approved by this permission or such other period as may be agreed in writing by the local planning authority.

Reason
To comply with policy HE9 of the North Lincolnshire Local Plan because the site lies in an area of archaeological interest.

10. No development shall take place until a construction phase traffic management plan showing details of all associated traffic movements, including delivery vehicles and staff/construction movements, any abnormal load movements, contractor parking and welfare facilities, storage of materials and traffic management requirements on the adjacent highway, has been submitted to and approved in writing by the local planning authority. Once approved the plan shall be implemented, reviewed and updated as necessary throughout the construction period.

Reason
In the interests of highway safety and to comply with policy T19 of the North Lincolnshire Local Plan.

11. No development shall take place until a scheme to demonstrate that all sensitive equipment is set at or above 3.5 metres AOD has been submitted to and agreed in writing by the local planning authority. The scheme shall be fully implemented and maintained in accordance with the agreed details unless otherwise agreed by the local planning authority.

Reason
To reduce the potential impact of flooding in accordance with policy DS16 of the North Lincolnshire Local Plan.
12. Notwithstanding the contents of the approved flood risk assessment, no development shall take place until a scheme for the disposal of surface water from the scheme has been submitted to and agreed in writing by the local planning authority. The scheme hereby permitted shall not be brought into first use until the agreed drainage scheme is implemented in its entirety.

Reason
To ensure satisfactory drainage is provided in accordance with policy DS14 of the North Lincolnshire Local Plan.

13. If, during development, any odorous, discoloured or otherwise visually contaminated material is found to be present at the site then no further development shall be carried out until a written method statement detailing how this contamination shall be dealt with has been submitted to and approved in writing by the local planning authority.

Reason
To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other off-site receptors in accordance with policy DS7 of the North Lincolnshire Local Plan.

14. The total rating level of sound emitted from the operation of all plant shall not exceed 35 dB LAeq,15min at any residential boundary. The definition of rating level shall be as described in British Standard BS4142:2014.

Reason
To define the terms of permission and to ensure that the development doesn't result in loss of residential amenity to residential properties, in accordance with policy DS1 of the North Lincolnshire Local Plan.

15. No development shall take place until a revised landscape and ecological management plan has been submitted to and approved in writing by the local planning authority. The plan shall include:

(i) details of measures to avoid harm to nesting birds, badgers, hedgehogs, reptiles and other protected and priority species during construction and ongoing management;
(ii) proposals for badger access gates in fencing with reference to existing runs and the main sett;
(iii) measures for the conservation of existing and target grassland plant communities, including details of any seed mixes to be used and proposals for the semi-improved grassland area identified in the submitted Phase 1 Habitat Survey;
(iv) details of enhanced tree and hedgerow management measures, including hedge planting, gapping up with mixed native species and sensitive hedge trimming;
(v) details of bat boxes and nest boxes to be installed;
(vi) proposed timings for the above works;
(vii) restrictions on external lighting to avoid impacts on bat foraging areas and sensitive habitats.

Reason
To protect and enhance features of recognised nature conservation importance in accordance with policy CS17 of the North Lincolnshire Core Strategy.

16. The landscape and ecological management plan shall be carried out in accordance with the approved details and timings, and the approved features shall be retained thereafter, unless otherwise approved in writing by the local planning authority. Prior to the completion of the approved development, the applicant or their successor in title shall submit a report to the local planning authority, providing evidence of compliance with the landscape and ecological management plan.

Reason
To protect and enhance features of recognised nature conservation importance in accordance with policy CS17 of the North Lincolnshire Core Strategy.

17. The scheme of landscaping and tree planting shown on drawing number BRS.5842.005.A shall be carried out in its entirety within a period of twelve months beginning with the date on which development is commenced or within such extended time period as may be agreed in writing with the local planning authority. Any trees, shrubs or bushes removed, dying, being severely damaged or becoming seriously diseased within five years of planting shall be replaced with trees, shrubs or bushes of similar size and species to those originally required to be planted unless the local planning authority have given written consent to any variation.

Reason
To ensure the implementation and maintenance of the submitted scheme of landscaping for the proposed development.

18. No additional external lighting shall be installed at the site unless otherwise agreed in writing by the local planning authority. The scheme shall include details of the number, type, position, height, location, luminance and timing of the lighting and the development shall be undertaken in accordance with the agreed details and thereafter retained.

Reason
To protect residential amenity and to prevent adverse impacts on wildlife in accordance with policy DS1 of the North Lincolnshire Local Plan.

19. The solar panels hereby permitted shall be constructed with a non-reflective surface finish and thereafter retained.
Reason
In the interests of aviation safety and biodiversity protection, in accordance with policies DS1 of the North Lincolnshire Local Plan and CS17 of the North Lincolnshire Core Strategy.

20. Before development is commenced, details of the method of protecting the existing trees on the site throughout the construction period shall be submitted to and approved in writing by the local planning authority, and such works as may be so approved shall be carried out before development is commenced, and maintained until completion of the development. None of the trees so protected shall be wilfully damaged or destroyed, uprooted, felled, lopped or topped, nor any other works carried out which would cause damage to the root systems or otherwise threaten the lives of the trees during the period of construction without the previous written consent of the local planning authority. Any trees removed without such consent or dying or being severely damaged or becoming seriously diseased during that period shall be replaced with trees of such size and species as may be agreed with the local planning authority.

Reason
In order to protect the existing trees on the site.

Informative 1
The public footpaths and bridlepaths shall remain free from obstruction during the duration of the construction period and no plant or machinery shall be stored upon them at any time.

Informative 2
The development hereby granted planning permission requires works to be carried out within the limits of the adopted (public) highway. Therefore:

- before ANY construction works take place within the limits of the highway you MUST contact the highway authority on telephone number 01724 297000 to arrange for the relevant permissions/licenses to be issued;

- before ANY service (utility) connections take place within the limits of the highway you MUST contact the highway authority on telephone number 01724 297319 to arrange for the relevant permissions/licenses to be issued.

Informative 3
In determining this application, the council, as local planning authority, has taken account of the guidance in paragraphs 186 and 187 of the National Planning Policy Framework in order to seek to secure sustainable development that improves the economic, social and environmental conditions of the area.
PA/2015/0434  Proposed Layout - Not to scale