

## DELEGATED ASSESSMENT

**Application no:** PA/2018/2140

**Proposal:** Planning permission for the installation of a renewable led energy scheme comprising ground mounted photovoltaic solar arrays and battery-based electricity storage containers together with substations; transformer stations; access; internal access track; landscaping; security fencing; security measures; access gate; and ancillary infrastructure

**Location:** Conesby House Farm, Normanby Road, Scunthorpe

**Applicant:** INRG Solar Ltd

**Officer:** [REDACTED]

## POLICY

**NPPF:**

- 2. Achieving sustainable development
- 4. Decision making
- 6. Building a strong competitive economy
- 9. Promoting sustainable transport
- 11. Making effective use of land
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment
- 16. Conserving and enhancing the historic environment

**Local Plan:**

- Policy DS1 (General Requirements)
- Policy DS3 (Planning out Crime)
- Policy DS11 (Polluting Activities)
- Policy DS12 (Light Pollution)
- Policy DS14 (Surface Water Drainage)
- Policy DS16 (Flood Risk)
- Policy DS21 (Renewable Energy)

Policy RD2 (Development in the Open Countryside)

Policy R5 (Recreational Paths Network)

Policy RD7 (Agriculture, Forestry and Farm Diversification)

Policy T1 (Location of Development)

Policy T2 (Access to Development)

Policy LC4 (Development Affecting Sites of Local Nature Conservation Importance)

Policy LC5 (Species Protection)

Policy LC6 (Habitat Creation)

Policy LC7 (Landscape Protection)

Policy LC12 (Protection of Trees, Woodland and Hedgerows)

Policy HE9 (Archaeological Evaluation)

**Core Strategy:** Policy CS1 (Spatial Strategy for North Lincolnshire)

Policy CS2 (Delivering More Sustainable Development)

Policy CS3 (Development Limits)

Policy CS5 (Delivering Quality Design in North Lincolnshire)

Policy CS6 (Historic Environment)

Policy CS11 (Provision and Distribution of Employment Land)

Policy CS17 (Biodiversity)

Policy CS18 (Sustainable Resource Use and Climate Change)

**Housing and Employment Land Allocations DPD:** PS-1 (Presumption in Favour of Sustainable Development)

**Planning Practice Guidance:** Renewable and Low Carbon Energy

**North Lincolnshire Council's Supplementary Planning Document – November 2011 – Planning for Renewable Energy Development**

**North Lincolnshire Council's Supplementary Planning Document – January 2016 – Planning for Solar Photovoltaic (PV) Development.**

## **CONSULTATIONS**

**Highways:** No objection subject to conditions.

**Spatial Planning:** Subject to meeting and addressing the requirements of the planning policy framework as set out above and national guidance, the proposed development is acceptable in principle.

**Ecology:** Initially requested wintering bird surveys be undertaken prior to determination.

Following the submission of additional survey data and consultation with Natural England the council's ecologist has confirmed that no further wintering bird surveys are required. Conditions are suggested to minimise harm to protected and priority species and to secure biodiversity enhancement.

**Environmental Health:** No objection. Conditions are recommended in respect of contaminated land, noise and construction operations.

**Lead Local Flood Authority:** No objection subject to conditions in respect of surface water drainage.

**Historic Environment Record (archaeology):** Initially issued a holding objection alongside a request for further information. Following the submission of an updated WSI the archaeologist has removed their objection subject to a scheme of mitigation being agreed and secured.

**Environment Agency:** No comments to make.

**Natural England:** Consider that the proposed development will not have significant adverse impacts on statutorily protected sites or landscapes.

**Lincolnshire Wildlife Trust:** No objection subject to an acceptable Landscape and Ecology Management Plan.

**Butterfly Conservation Group:** No objection. Make informative comments.

**NATS Safeguarding:** No objection.

**Defence Infrastructure Organisation:** No objection.

**IDB:** Make informative comments.

**Humberside Fire and Rescue:** Make informative comments.

## **PARISH/TOWN COUNCIL**

No response received.

## **PUBLICITY**

The application has been advertised by site and press notices for a period of not less than 21 days.

## **LETTERS OF COMMENT**

One letter of objection has been received from a resident on Orb Lane to the south. This letter raises the following concerns:

- This development would engulf the houses on Orb Lane and overwhelm the area.
- The view of rolling countryside will be changed to glaring panels.
- What will happen to wildlife when their natural habitat is lost.
- The hedge along Orb lane is not evergreen and has gaps that would allow views into the site.
- Will affect the value of houses on Orb Lane.

## **MATERIAL CONSIDERATIONS**

### **Site**

The application site measures 70.9 hectares in area and comprises a number of agricultural fields in arable use, surrounding Conesby Farm and located on the northern outskirts of the Scunthorpe urban area. Field boundaries are largely defined by trees and hedges, with further groups of trees present within the surrounds of the farm and to the south east. Access to the site is via an existing agricultural access track serving Conesby Farm and there are a number of overhead lines traversing the site.

The site is bounded by a variety of different land uses. To the north the site is bounded by industrial units, the Eddie Wright Raceway and undeveloped land within the curtilage of the raceway. To the west the site is bounded by the B1430 (Normanby Road), beyond which is the Normanby Enterprise Park and the Foxhills Industrial Estate. To the south the site is bounded by heavy industrial units within the Dragonby Vale Enterprise Park and Orb Lane, which provides access to a row of residential properties. To the east the site is bounded by a railway line, beyond which lies open cast mines and the hamlet of Dragonby.

### **Constraints**

The entirety of the site is classified as grade 4 agricultural land as defined on the Provisional Agricultural Land Classification Map (1977) and as such does not comprise best or most versatile agricultural land.

The whole of the site is located within Flood Zone 1 as defined on the EA flood maps and the Strategic Flood Risk Assessment for North Lincolnshire; therefore the site is considered to be at low risk of flooding. The site is not identified as being at risk of surface water flooding.

The site is known to be of archaeological interest, with previous surveys identifying remains relating to prehistoric and Roman settlement, Bronze Age round barrow as well as remains thought to be associated with the former medieval settlement of South Conesby. There are no listed buildings or scheduled monuments within or adjacent to the site; nor is the site in close proximity to any conservation area. The nearest designated heritage assets to the site are:

- Dragonby Roman Site Scheduled Ancient Monument – located approximately 500m to the east;
- Sawcliffe Medieval Village Scheduled Ancient Monument – located approximately 1km to the north east; and
- Flixborough Saxon Nunnery Scheduled Ancient Monument – located approximately 1.5km to the north west.

There are no designated sites in respect of ecology or landscape located within, or directly adjacent to the site. The nearest designations to the site are:

- Sawcliffe Local Nature Reserve – located approximately 350m to the south east;
- Coneby Quarry Local Nature Reserve – located approximately 450m to the north;
- Pheonix Parkway Local Nature Reserve – located approximately 1,400m to the north west;
- Atkinsons Warren Local Nature Reserve – located approximately 1,200m to the west.
- Conesby Quarry SSSI – located approximately 900m to the north east; and
- Risby Warren SSSI – located approximately 1,200m to the east.

## **Proposal**

This application seeks full planning permission for the installation of photovoltaic ground mounted solar modules and associated infrastructure to deliver an export capacity of 40MW. The solar modules will be fixed to mounting structures in strings, with approximately three quarters of the strings orientated to face south and the remainder facing east and west.

The solar modules will be tilted on their horizontal axis to maximise their generating capacity. The south facing strings will stand 2.4m above ground level at their top edge and 0.75m above ground at their front edge. The east and west facing strings will have a shallower angle and will stand 2m high at their top edge and 1m high at their front edge. The strings of solar modules will be mounted on racks supported by steel poles driven into the ground. In the archaeologically sensitive areas of the site the modules will employ a non-intrusive construction method with the poles sitting in concrete shoes.

Cabling to the modules will be concealed in trenches. In the archaeologically sensitive areas of the site the cabling will be contained in a cable trough. The point of connection to the electricity grid will be the existing electrical network, which runs through the proposed site and farmstead. The proposed development includes electrical connection infrastructure.

Transformers and associated switch gear are required to convert the DC energy produced by the solar arrays to AC energy, as required by the national grid. A sub-station is also necessary to house the equipment that connects the PV plant to the local energy distribution network. The sub-station, transformers and switch gear are to be located within a small compound to the western side of the site, immediately to the north of the access road.

To fully utilise the 40MW network connection capacity, the proposal includes approximately 10MW of battery storage containers that can provide frequency response to the national grid when the solar park is not exporting at peak capacity. Three battery-based containers are proposed and these containers will be positioned to the east of the substation.

The site will be secured by a 2m high security fence around the solar arrays. There will be a minimum distance of approximately 4 metres between the security fencing and the existing boundary hedging. The layout of the development allows for the retention of existing field boundaries and ditches and it is proposed that the site will be retained as grassland around/beneath the panels and grazed by sheep.

The proposed solar development has an anticipated life of 35 years, at the end of which the modules will be decommissioned and removed from the site.

It is stated that the solar park would generate clean, renewable energy for the equivalent of 12,120 homes per year, displacing an anticipated 17,200 tonnes of CO<sub>2</sub> per annum. The proposal will contribute towards meeting renewable energy targets and would make a valuable contribution to cutting greenhouse gas emissions and tackling climate change.

## **Principle**

Prior to the submission of the application the applicant submitted a formal screening request to the authority. The local planning authority determined that an Environmental Impact Assessment was not required for the development as there is no likely significant impact on the environment.

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise. In this instance the development plan consists of the North Lincolnshire Local Plan (NLLP) which was adopted in May 2003, the North Lincolnshire Core Strategy (NLCS) which was adopted in June 2011 and the Housing and Employment Land Allocations (HELA) DPD which was adopted in March 2016. Material considerations exist in the form of national planning policy and guidance contained within the National Planning Policy Framework (NPPF), the suite of documents comprising of the Planning Practice Guidance (PPG) and North Lincolnshire Council's Supplementary Planning Documents in respect of renewable energy development (November 2011) and solar photovoltaic development (January 2016).

The majority of the proposal adjoins (but is outside) the defined development limit for Scunthorpe as shown on Inset Map 36 of the HELADPD (2016) and as such is classed as being in the open countryside. Accordingly, the provisions of policies CS1, CS2 and CS3 of the Core Strategy and policies RD2 and RD7 of the Local Plan apply. Whilst policies CS1 and CS2 consider Scunthorpe as the primary location for development and growth in North Lincolnshire, these policies together with policies CS3 and RD2 seek to restrict development in the open countryside to that which is essential to the functioning of the countryside, or requires a countryside location. Whilst a brownfield location would be preferable, it is considered that given the size and nature of solar farms sites they often require an open countryside location and site within the countryside can be suitable. Furthermore, this type of development often allows for agricultural uses such as grazing to take place during the operational period.

Policy DS21 of the local plan is specific to renewable energy development and is supportive of renewable energy projects provided that any detrimental effect is outweighed by environmental benefits.

Notwithstanding the above, the National Planning Practice Guidance and the council's Solar PV SPD seeks to ensure that proposals for solar PV arrays are located on previously developed land and buildings. Where proposals are located on agricultural land, it should be demonstrated that there is a need for this, and that they should be located on poorer quality land (ACL Grades 3b, 4 or 5) rather than the best and most versatile agricultural land (ACL Grades 1, 2 and 3a). It is noted that the proposed site is identified as being Grade 4 agricultural land; and that the size of the proposed solar farm and limited supply of brownfield land within North Lincolnshire would necessitate a countryside location.

As stated above, the applicant has confirmed that the site is classified as Grade 4 agricultural land. The contributing factors to the soil limitations are identified as being blown sands and made ground resulting from past quarrying activities. It is stated that a 35 year break of grass will add significantly to the organic matter levels in the soil and that this will then help the soil to hold moisture which will be available to crops and their growth. Therefore, the proposal will result in increased productivity from arable cropping on the site following the removal of solar panels from the site after decommissioning. In view of this there would be no objection in principle on grounds of loss of high grade agricultural land. The proposal would therefore comply with national planning policy regarding the safeguarding of agricultural land.

The National Planning Policy Framework (NPPF) is a material planning consideration in the determination of this application and has a presumption in favour of sustainable development. At paragraph 148 it states that *"the planning system should support the transition to a low carbon future... It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions... and support renewable and low carbon energy and associated infrastructure"*. This is central to the economic, social and environmental dimensions of sustainable development.

It is further acknowledged that there is support at the national and European levels for low-carbon technologies in response to the Governments climate change commitments and the need to ensure that the country has a secure supply of energy. 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.

For the reasons outlined in the paragraphs above, it is considered that the proposal is acceptable in principle and meets the criteria set out in the latest revisions to planning policy guidance. There are no allocations for renewable energy land within the local plan or within the development framework and so each application needs to be determined on its merits as required by government policy.

### **Landscape and Visual Impact**

The applicant has submitted a Landscape and Visual Impact Assessment with the application, which concludes that the site is well contained from the wider landscape and that the position of the site within a localised shallow valley running north-south along with bands of woodland, areas of regenerating scrub and hedgerows also limits the potential for longer distance views. Therefore landscape and visual impacts are predicted to be localised in nature.

The site lies within a landscape which is characterised by the adjacent large industrial area which bounds the site to the south and west. The character of the site is also in part influenced by the adjacent quarries and wind farm to the north. The site forms a remnant parcel of agricultural land within a largely industrialised and intensively developed landscape linked to the historic development of the town's steelworks. As such the sensitivity of the local landscape is considered to be low-medium.

There will be an inevitable effect upon the landscape given the scale and nature of the proposed development and the undeveloped nature of the site at present. However, the areas of the local landscape from which any effects on landscape character could be perceived are highly limited due to the local topography. The impact on landscape character is further mitigated due to the site being well contained by existing development and the topography of the surrounding area. This means that wider views of the site are limited and will primarily be from localised areas of higher ground and through gaps in landscaping and built form.

As part of the proposal it is proposed to improve existing landscaping around the site (gapping up) and to supplement this with additional landscaping which will be secured via a planning condition. This will further reduce the visibility of the development in the landscape in accordance with Planning Policy Guidance.

From a landscape and visual perspective, any effects on landscape character as a result of the proposed development would be limited and localised due to the topographical location of the site and its location adjacent to existing industrial areas.



Visual impacts will be further mitigated by the existing and proposed boundary planting. For these reasons it is considered that the landscape and visual impacts of the proposed solar park development would not be significant.

## **Ecology and Biodiversity**

The NPPF states that the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, geological conservation interests and soils. It should also recognise the wider benefits of ecosystem services and minimise impacts on biodiversity and provide net gains in biodiversity where possible, thereby contributing to the Government's commitment to halt the overall decline in biodiversity including coherent ecological networks that are more resilient to current and future pressures. The NPPF also states that opportunities to incorporate biodiversity in and around developments should be encouraged.

Planning Policy Guidance states that if land is to be used for large-scale solar energy farms the land under and around the solar arrays should be used either for grazing land or should be enhanced by the creation of suitable habitats to improve biodiversity. The applicant has confirmed that it is proposed to use the site for the grazing of sheep. It is also proposed to incorporate biodiversity enhancements through landscaping and newly created habitats. The creation and management of these habitats will be secured through the production of a Landscape and Ecological Management Plan, which will be secured by condition.

The application submission is supported by an ecological survey undertaken by Clarkson and Woods Ltd. This report identifies that the majority of the application site comprises large arable fields with little ecological importance and concludes that the installation of panels into these areas is unlikely to result in any long-term adverse impacts upon biodiversity. Furthermore, subject to the establishment of grassland beneath and around the panels (as proposed), the scheme is likely to result in a positive impact upon biodiversity.

The proposed development has been designed to ensure the retention of the most ecologically valuable habitats. Proposals have been suggested as part of the ecological report to avoid harm to protected species and to secure a net gain in biodiversity on the site. The council's ecologist has reviewed the submitted information and survey works and has confirmed that subject to the proposed avoidance and mitigation measures being secured then the proposed development will not have an unacceptable impact on protected or priority species. Natural England have also confirmed that they have no objections to the proposals in respect of protected and priority species. Additional conditions have been recommended by the ecologist to secure biodiversity enhancement on the site via a Biodiversity Management Plan.

Lincolnshire Wildlife Trust and Butterfly Conservation have commented on the application. Lincolnshire Wildlife Trust have welcomed a number of the mitigation measures proposed as part of the application and have raised no objection subject to an acceptable Landscape and Ecological management Plan being secured. Butterfly Conservation have provided clarification on the butterfly and moth species

that could be affected by the development. The conditions proposed by the council's ecologist reflect the comments raised by these bodies and will secure the necessary mitigation and avoidance measures.

Giving due regard to the lack of objection from Natural England and the council's expert ecologist it is considered that, subject to the suggested conditions, the proposed solar park development would have no unacceptable impact in respect of ecology or biodiversity.

## **Cultural Heritage**

The National Planning Policy Framework (NPPF) provides guidance to local authorities for conserving and enhancing heritage assets and their settings, which includes archaeological sites and remains. Paragraph 8 refers to the role of the planning system to contribute to protecting and enhancing the historic environment under the three overarching objectives for achieving sustainable development. Paragraph 184 describes heritage assets as *'an irreplaceable resource'* to be *'conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations'* (para 17). Paragraph 189 further states that *'Where a site on which development is proposed includes or has the potential to include heritage assets of archaeological interest, local planning authorities should require developers to submit an appropriate desk based assessment and, where necessary, a field evaluation.'*

The relevant Development Plan policies in respect of cultural heritage and archaeology are policy CS6 of the North Lincolnshire Core Strategy and policy HE9 of the North Lincolnshire Local Plan.

Core Strategy policy CS6 Historic Environment states that *'The council will seek to protect, conserve and enhance North Lincolnshire's historic environment as well as the character and setting of area of acknowledged importance including historic buildings, conservation areas, listed buildings (both statutory and locally listed), registered parks and gardens, scheduled ancient monuments and archaeological remains.....'*

In respect of archaeology, policy HE9 states that *'Where development proposals affect sites of known or suspected archaeological importance, an archaeological assessment to be submitted prior to the determination of a planning application will be required. Planning permission will not be granted without adequate assessment of the nature, extent and significance of the remains present and the degree to which the proposed development is likely to affect them.'*

Policy F of North Lincolnshire's Supplementary Planning Guidance – Planning for Solar Photovoltaic (PV) Development also applies. Policy F deals with the approach to heritage and states that *'developers must give consideration to the impact of their proposals on heritage assets and the historic environment. This includes direct and indirect impacts on designated and non-designated assets and their settings.'*

A Heritage Assessment has been submitted in support of the planning application. The heritage assessment provides a description of the known and potential heritage

assets within the boundary of the development site and the surrounding area and incorporates the results of a previous archaeological field evaluation undertaken across the site in connection with a proposal for residential development. The previous archaeological investigations on the site revealed that there are extensive areas of significant remains surviving across the proposed development site that include a Roman structure with intact floor levels, a very rare survival in North Lincolnshire; medieval stone buildings with internal features and significant evidence for medieval ironworking including the likelihood of smelting furnaces. In addition to the recorded archaeology of the site, the heritage assessment notes that there is potential for further significant features to be present within other areas of the site, and that this would include round the edges of the previous ironstone quarry, where the precise limits of the quarry have not been fully defined

The Scheduled Monument of Dragonby 'Money Field' Roman site, lies on the opposite side of the Winterton Beck valley to the application site. The PROW between the A1077 and Dragonby village runs alongside the scheduled area. Views across the scheduled site towards the application site are afforded when travelling along the adjacent A1077, and from the road leading into the village. Because of the perspective of the topography, the application site appears to lie in the adjacent fields to the scheduled site, seen over a narrow belt of tree-tops within the valley. The heritage assessment states that there is no intervisibility of the application site with Sawcliffe medieval village Scheduled Monument, located a short distance further along the A1077 above Dragonby.

In respect of physical impacts the Heritage Assessment identifies the following groundworks that would have the potential to impact upon archaeological remains:

- Installation of solar panel modules;
- Installation of perimeter fencing [and CCTV poles];
- Excavation of service trenches;
- Excavation of foundations for inverter kiosks/substation and battery site;
- Topsoil stripping and excavation associated with the construction of the access tracks and with the establishment of works compound;
- Planting; and
- Excavation of drainage trenches/swales.

In addition to these impacts the decommissioning of the solar farm also has the potential to have a significant impact on the integrity of archaeological remains, including the removal of the support poles and the cultivation of areas of trackway and hardstanding.

The council's archaeologist has confirmed that the construction and operation of the proposed solar farm would result in harm to the sites and settings of the archaeological features within the development site, and, to the setting of the Dragonby scheduled monument.

Because of the topography, with the application site and the scheduled monument on opposite sides of the valley, the solar panels would appear to be in the next field to the monument, with clear views across and from within the monument, as well as

from the PROW running along the west side of the monument. The setting in which the scheduled monument is currently experienced comprises agricultural land and countryside with an urban and industrial backdrop to the south and west, and the wider countryside to the north and east. The proposals will extend the industrial setting up to the monument as it appears in these views. Whether or not the setting contributes to the significance of the monument, the experience of the monument and the other heritage assets and how they can be appreciated in the landscape will change.

A number of measures are proposed in the heritage assessment to mitigate the assessed harm to known and potential archaeological features. These comprise the use of non-intrusive concrete foundations for the solar panels, and minimally intrusive foundations for the cable troughs within the known archaeologically sensitive areas. There are three such areas and these are demarcated on the Table Layout (Drawing No A10B0C0. The heritage assessment also proposes that an archaeological watching brief is held during construction of the substation and grid connection east of Normanby Road *'where particularly significant remains could be affected'*, and during stripping for access tracks or foundations.

Having reviewed the heritage assessment the council's archaeologist raised a number of concerns with the proposed mitigation measures. In respect of the areas designated for non-intrusive construction methods (the archaeologically sensitive areas) the northern area incorporating the remains of the Iron Age Occupation, Romano-British settlement, and western part of the Conesby medieval settlement should be extended to the northern boundary of this field. This will incorporate the known remains here that include a late Saxon feature and significant evidence of medieval ironworking that indicates the presence of furnaces in the immediate vicinity, as well as a series of medieval and undated ditches. Also, archaeological monitoring during groundworks (ie a watching brief), and the recording of all identified archaeological features, should take place on specified elements of the development. Dependent on the area this will include the swale, CCTV & fence footings, widening of existing track, temporary road, transformer foundations, the DC & HV cable trenches around archaeological sensitive area. In addition, a 10m buffer should be maintained around the cropmark of the Round Barrow site, with temporary fencing erected to prevent damage during construction works.

Following further discussions between the applicant's and the council's archaeologist a detailed archaeological mitigation strategy setting out agreed measures has been produced together with a Written Scheme of Investigation for the archaeological programmes of work including the pre-construction strip map and record area, and the monitoring and recording during groundworks. An additional mitigation strategy has been produced in respect of the archaeologically sensitive areas setting out the design of the non-intrusive construction methodology.

Furthermore, because the proposals will result in an extension of the industrial backdrop and change the setting of Dragonby Scheduled Monument this will affect how the archaeological interest and time-depth of the landscape is appreciated. To mitigate this change, the applicants have agreed to provide an information/interpretive board to describe the monument and the archaeological sites in the landscape including those on the application site. The location and details of

the board are to be agreed with the council's archaeologist prior to its production and installation.

The mitigation strategy and WSI has been agreed by the council's ecologist and subject to conditions securing the implementation of the agreed measures it is considered that the proposed development will have no unacceptable impact on cultural heritage.

## **Contamination**

A Phase 1 Desk Study on ground conditions, geotechnical and contamination aspects for the application proposal has been completed and submitted in support of the application. The report has identified the site as being 71ha in size, consisting of predominantly arable land with the south and south east of the site consisting of part restored opencast ironstone workings. Landfill sites are located on the northern boundary.

Potential sources of contamination have been identified, associated with the historical industrial land uses in the area including remnant metals, asbestos and organics in soils within the areas of the restored ironstone workings. There is also the potential for landfill gases migrating from the extensive landfills to the north of the site and vapour risk in close proximity to the southern boundary. Contaminated ground water and leachate must also be considered. However, considering the up hydraulic gradient of the site and the relatively shallow works proposed risks to ground water are considered low.

The report recommends that an intrusive contamination investigation concentrated on the eastern and north eastern boundary zones should be undertaken to categorise the shallow soils and the gas regime in these areas. Should ground water be identified in the shallow borehole, sampling to provide analysis should be undertaken.

The council's Environmental Health Officer (EHO) has reviewed the submitted documentation and has raised no objection to the scope and methodology of the submitted desk study. Based upon the findings and recommendations set out in the report the EHO has recommended conditions to secure a scheme of intrusive contamination investigation and remediation where necessary. Subject to these conditions it is considered that the proposed development will not be at unacceptable risk of land contamination.

## **Highways**

The main consideration regarding transport issues relates to the construction and restoration phases of the development. It is anticipated that construction operations will take approximately 6 months with construction activities taking place Monday to Friday between 8am and 5pm and between 8am and 1:30pm on Saturdays. The construction phase for the solar farm includes the preparation of the site, installing the access tracks, erection of security fencing, assembly and erection of the PV strings, installation of the inverters/transformers and grid connection.

The components which are required to construct the solar farm will arrive in 40ft containers by 15.4m long articulated vehicles. From experience, elsewhere, the applicant has confirmed that around 140 15.4m articulated vehicles are required for every 10MWp at the site, split equally between the modules and mounting structures. The site is proposed to generate 135.93MWp and as such this will equate to around 1,903 deliveries by 15.4m articulated delivery vehicles.

The largest items to be transported to the site are the inverter stations. There are around 8.6m long, 3.15m high and 2.6m wide. The proposed solar farm will have a total of 48 inverters and it is assumed that each will be transported by a vehicle no longer than a 18m low loader. It is assumed that the inverters will be transported individually due to their weight and as such this would equate to a total of 48 deliveries. It is likely that the material required for the access tracks will arrive by 10m rigid vehicles. The precise number will depend on the type and the amount of material required, but for the purpose of this assessment we have assumed that one delivery is required per five acres, resulting in a total of 104 deliveries.

In total it is anticipated that the construction of the solar farm will generate approximately 2,133 deliveries by HGV's at an average of around 16 deliveries, or 32 two-way movements per day. There will also be a small number of construction movements associated with smaller vehicles such as the collection of skips for waste management, the transport of construction works and sub-contractors.

Components which are required to construct the battery storage facility will arrive in 20ft containers by 16.5 metre long low loader vehicles. Each of the battery units will require four containers measuring 6.1m x 2.4m, and an Inverter unit measuring up to 6.1m x 2.4m. Two containers and Inverter Units will therefore arrive per delivery, resulting in a total of approximately 16 deliveries for the entire site. In total it is anticipated that the construction of the battery storage area will generate 71 deliveries by HGV's, which equates to less than 1 per day over the proposed construction period.

A maximum of between 80 and 100 construction works are anticipated to be onsite during the peak times during the construction period. A temporary construction compound will be provided for storage, parking for contractors and the turning of HGVs.

All construction vehicles will access the site via the existing Conesby farm access with the B1430 – Normanby Road. It is proposed to improve the access to provide an 7.3m access track for the initial 20 metres leading into the site and junction bellmouth radii of 10m. It is also proposed to reposition the hedgerow to the north of the junction to enable a visibility splay of 2.4 x 120m to be achieved to the nearside kerb looking right out of the access in accordance with the existing 40mph speed limit. The council's highways officers have raised no concerns in respect of the proposed access arrangements subject to a condition securing a Construction Phase Traffic Management Plan.

Normanby Road serves the nearby Foxhills Industrial Estate and surrounding industrial units, therefore the road and junctions are frequently used by large delivery vehicle types, such as those anticipated to access the site

during the construction programme. This road provides links to the wider strategic highway network and as such it is considered to be suitable to facilitate access to and from the site.

It is anticipated that the site will operate predominantly by remote access and only visited on an occasional basis with minimal impact to the surrounding local network. The largest vehicles that are likely to be used during the operational phase is expected to be no larger than a 7.5t van. There will be sufficient space within the site to allow for operational vehicles and service vehicles to enter, manoeuvre, turn and exit the site in a forward gear.

For the reasons outlined above it is considered that the proposed development will not have an unacceptable impact on highway safety.

### **Amenity**

The development will be viewable from properties on Orb Lane to the south and in Dragonby to the east. Properties on Orb Lane are in close proximity to the southern border of the site, which runs along the northern side of the road, whereas properties in Dragonby are located some distance to the east and separated by former mine workings and a railway line. Given the maximum height of the panels being 2.4m it is considered that existing screening, supplemented by new planting to be secured via condition will offer protection to the views of neighbouring properties. Due to the elevated position of properties in Dragonby, they will still be able to view the solar farm; however the development will be viewed at a distance in excess of 400 metres and against the backdrop of existing industrial developments. Furthermore, given the orientation of properties in Dragonby, views of the site will be obtuse and not direct.

Information has been provided with the application in respect of noise generated by the development and the proposed battery storage area in particular. The council's environmental health officer has considered this information and has confirmed that it is insufficient to demonstrate that there will be no impact on neighbouring residential properties as a result of noise. On this basis they recommend a condition requiring the submission of further assessment and mitigation in respect of noise. It is considered that the recommended condition will adequately protect neighbouring properties from noise generated by the development.

For these reasons it is considered that the proposed development will not have an unacceptable impact on residential amenity.

### **Cumulative Impact**

There are no existing solar farms close to the application site. In respect of renewable energy development, there is a small wind farm (Bagmoor) located to the north of the site. Whilst the aforementioned wind farm is viewable from the proposal site, the relatively flat nature of the site and low-level nature of the panels result in limited potential for cumulative views within the landscape. It is therefore considered that there will be no significant cumulative impact as a result of the development.

### **Decommissioning**

The Government considers solar energy to be a temporary use of land, however, and expects that land used for solar energy will be returned to a productive agricultural use after the temporary use ends. In this instance the applicants have confirmed that the solar park is anticipated to have a 35 year lifetime. Conditions have been imposed to limit the permission to 35 years and to secure a suitable decommissioning scheme to be implemented after the end of the 35 year period or after a period of 6 months non-continuous generation. This is in line with other large-scale solar farm developments.

## **Conclusion**

The use of agricultural land for renewable energy which is not high quality (Grade 1, 2 or 3a) or most versatile is considered to be acceptable in principle and provided that there are no significant environmental impacts the application should be supported in order that global and government targets can be met in terms of reducing greenhouse gases and the reduction in use of fossil fuels with the consequent impact on climate change.

Whilst there would be some visual impact to residents and users of surrounding roads and footpaths, it is considered that sufficient screening would be secured to minimise the impact of the development.

Subject to the recommended conditions, the proposed solar park will not have any unacceptable environmental impact that would outweigh the benefits of the development. As such the proposals are considered to be acceptable and this application is recommended for approval.

## **RECOMMENDATION:**