Pegasus Group

COTMOOR SOLAR FARM.

PLANNING APPLICATION FOR THE CONSTRUCTION OF A SOLAR FARM AND BATTERY STATIONS TOGETHER WITH ALL ASSOCIATED WORKS, EQUIPMENT AND NECESSARY INFRASTRUCTURE.

DESIGN AND ACCESS STATEMENT

JBM SOLAR PROJECTS 6 LTD.
JULY 2020.
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FULL PLANNING APPLICATION FOR THE CONSTRUCTION OF A SOLAR FARM AND BATTERY STATIONS TOGETHER WITH ALL ASSOCIATED WORK, EQUIPMENT AND ASSOCIATED INFRASTRUCTURE

DESIGN & ACCESS STATEMENT

COTMOOR SOLAR FARM

ON BEHALF OF JBM SOLAR PROJECTS 6 LTD.

Pegasus Group

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PLANNING | DESIGN | ENVIRONMENT | ECONOMICS

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1. INTRODUCTION

1.1 This Design & Access Statement has been prepared by Pegasus Group on behalf of JBM Solar Projects 6 Ltd (The Applicant) to support a planning application for a Solar Farm and battery stations together with associated equipment on Land near to Halloughton, Southwell, Nottinghamshire (the Application Site).

1.2 This application seeks full planning permission for a ground-mounted solar PV development including battery storage with the following Description of Development:

> **"Construction of a solar farm and battery stations together with all associated works, equipment and necessary infrastructure."**

1.3 The Proposed Development would have a capacity of 49.9MW. Planning Permission is sought for a temporary period of 40 years from the date of first exportation of electricity from the site.

1.4 The onsite Substation will be required on a permanent basis, as the Substation will become part of the local electricity distribution network. Therefore, following the temporary 40 year period, the solar panels, battery stations and associated equipment will be removed however, the Substation and access to it will be retained on a permanent basis.

1.5 The purpose of this document is to demonstrate that the Applicant has fully considered the design and access issues as part of the comprehensive preparation of the scheme prior to submission of the planning application. This report therefore covers the following matters:

- Use
- Amount
- Layout
- Scale
- Landscaping
- Appearance
- Access

2. APPLICATION SITE AND CONTEXT

2.1 The site comprises thirteen agricultural fields to the north of the village of Halloughton. A separate area of woodland, which will be unaffected by the development proposals, but improved for biodiversity lies to the west of the site.

2.2 The site comprises land within both the parish of Halloughton and the parish of Southwell.

2.3 The built-up area of Halloughton lies close to the southern boundary of the site and the A612 Highcross Hill forms part of the eastern boundary. A number of isolated properties are located in close proximity to the application boundary including; New Radley Farm and Stubbins Farm. Buildings associated with New Radley Farm (accessed from track to the north) are located within the northern portion of the site, however a setback has been provided.

2.4 Overhead electricity lines and pylons cross the site in an east-west direction.

2.5 An area of Ancient Woodland 'Halloughton Wood' is located c.150m to the west of this site at its closest point.

2.6 Bridleway (BW74) runs from the north-eastern edge of Halloughton Wood in a broadly east to west direction through a small portion of the site.

2.7 A series of existing field boundaries, hedgerows and vegetation are present around and across the proposed application site.

2.8 With regard to nearby designations, much of Halloughton is defined as a Conservation Area, including four Grade II Listed Buildings and one Grade II* Listed Building. Further Grade II Listed Buildings are located to the east. Southwell to the north-east of the parcels contains a large Conservation Area and numerous Listed Buildings.

2.9 A review of the Newark and Sherwood's Adopted Policies Map has been undertaken. This has shown that the site is entirely outside of any defined settlement and is therefore in the open countryside for the purposes of planning. Within the development plan for Newark and Sherwood, there is a Site of Interest in Nature Conservation (Core Policy 12 and DM7) running in a broadly east to west direction through the northern portion of the site. Additional Sites of Interest in Nature Conservation are located in close proximity to the western boundary of the site.

3. DESIGN

3.1 A considerable number of factors have contributed towards the design and layout of the solar farm, battery stations and associated development that is proposed in this application. These are now discussed against the various aspects of Design highlighted within CABE's guidance document regarding the production of Design and Access Statements.

3.2 An important factor in finalising the proposals has been consultation with the community and local stakeholders. This process is summarised in the accompanying Statement of Community Involvement.

Use

3.3 It is proposed that the use of the site will be for the development of a 49.9MW solar farm, involving solar PV panels, battery stations and associated infrastructure.

3.4 The proposed solar farm will involve the temporary change of use of the land but, due to the time restricted nature of the development, the agricultural use will be retained in the long term. The site will also be capable of dual use farming during its operational period, with small livestock able to graze the land between and amongst the panels.

3.5 In addition, the minimal physical intrusion of the development itself will mean that the panels can be removed after their 40-year life time and the land will revert swiftly to full agricultural use. In this respect, the proposed scheme will result in a less permanent impact than most other forms of development, including some alternative methods of renewable energy production.

3.6 The inclusion of battery storage within the development will increase the effectiveness of the Proposed Development, balancing the release of electricity produced from a renewable source into the grid.

3.7 Due to the land required for such projects, these will generally need to be located outside of urban areas and within the countryside, where the capacity to accommodate such developments exists.

3.8 This Design and Access Statement, and the accompanying documents, set out why it is considered that this particular site is well suited to accommodate the proposed use.

Amount and Fabrication

3.9 The extent of the Proposed Development has been refined and finalised having consideration of potential environmental effects. The development is set back from the northern edge of Halloughton this reduces potential effects on residential amenity. The location of the panels helps to restrict visibility from residences within the village, albeit there are a limited number of local residents nearer to the development that will be more directly affected. The proposed development benefits from mitigation planting, including new and in-filled hedgerow planting, tree planting and enhancement of field margins through proposed species rich grassland.

3.10 As a result of the iterative process, the Proposed Development, although covering a large area of land, is confined to locations where effects have been limited as far as possible and are considered justifiable when considered in the context of the scheme benefits, including to support the UK's renewable energy generation and legally binding CO_2 reduction targets. Consideration of the planning balance which weighs up all material factors associated with the planning application is contained within the accompanying Planning Statement.

3.11 The Proposed Development on the site where effects can be justified will consist primarily of a steel framework to support the panels and the panels themselves. In addition, inverter/transformer containers and battery containers and converter boxes will be introduced, plus deer fencing and a CCTV system to restrict access and protect the scheme from theft and vandalism. A substation will also be necessary and will need to fulfil the technical and operation requirements of the Distribution Network Operator (DNO). This is the minimal level of development necessary to ensure that the site performs effectively with regards to its purpose of generating low carbon renewable energy.

Layout

3.12 In proposing the general layout of the development, great consideration was given to the retention of the established field boundaries on site along with planting of native hedgerows and trees. This will help ensure that the development is well contained both physically and visually. Additionally, new species-rich grassland has been proposed.

3.13 Relatively small ancillary control buildings and storage containers are required around the site. The submitted Site Layout drawing outlines the position of these structures within the site and accompanying drawings set out their dimensions.

3.14 A network of internal tracks around the solar parcels will be laid to allow vehicle access to the supporting equipment (mainly Substation, inverters, transformers and batteries) to allow for maintenance. The layout and extent of the roads is limited to that necessary to provide access and maximise efficiency. The drawings submitted to accompany this planning application illustrate string inverters on the panel elevations as well as inverter and battery stations positioned across the application site.

3.15 The 2m high perimeter fencing and pole-mounted CCTV system serves an important purpose in protecting the valuable equipment within the application site. The perimeter fencing includes badger/small mammal friendly access points to allow the passage of Badgers across the application site. Its siting has however also considered the impact on the appearance of the area and has been set away from the boundaries of the fields, ensuring that there is separation from the existing vegetation and any sensitive ecological features. The existing and proposed mitigation planting will contribute towards visual screening of the site.

Scale

3.16 The scale of development on site has been determined by the equipment necessary to efficiently generate renewable energy. All of the equipment, plant and buildings, with the exception of some component parts of the Substation (which will be seen in the context of the existing large pylon network), on site will be at or below single storey level (i.e. approximately at or below c.3m in height) ensuring that they will not be readily visible from most viewpoints outside of the site and be limited in wider views. Even when viewed from nearby public vantage points, the scale of development will not be overbearing due to its limited height and relatively benign appearance (i.e. lack of movement and external illumination).

3.17 Each array of panels within the field will be mounted on a simple metal framework and have a maximum height of no more than 3m. The main purpose of the mounting structure is to hold the modules in the required position without undue stress. It must be capable of withstanding appropriate environmental stresses for the location, such as wind or snow loading. The framework will be driven into the soil between 1 and 2 metres deep, removing the need for deep foundations. Such

supporting systems are designed to avoid the use of concrete foundations and are reversible.

3.18 With regard to the proposed ancillary buildings, they are designed to be as small as possible while still being capable of undertaking their required function within the site. Such structures will not be prominent within the surroundings and be smaller than many isolated stores and barns typically found in the countryside environment.

Landscape

3.19 The impact upon the local landscape has been given careful consideration in putting forward the proposed scheme. While a scheme of this size will inevitably have an effect on landscape character as set out above, it has been located so to minimise effects as far as possible.

3.20 It is considered that the landform and vegetation of the site and surrounding area, make this location ideal for utilisation as a solar farm and the effects resulting from the installation of the development.

3.21 Consequently, the LVIA confirms that gaps in the existing vegetation would be infilled or reinforced with appropriate native tree or shrub planting to aid in filtering and screening views of the site. The LVIA confirms that there are a limited number of locations in the surrounding landscape where views of the proposed development could be experienced. Further consideration of the landscape and visual effects is contained in the LVIA.

Appearance

3.22 Visual effects of the proposed development have been assessed in the LVIA. In the longer term as a result of the mitigation planting visual effects would be reduced.

3.23 In any case, the proposed measures of introducing additional new planting along the boundaries of the site will help mitigate any effect on visual amenity.

4. ACCESS

4.1 Access to the site, for construction will be via Bridle Farm Road. Bridle Farm Road in turn accesses Highcross Hill Road to the east with a priority T-junction.

4.2 A detailed Construction Traffic Management Plan (CTMP) has been prepared to demonstrate how the site will be accessed during the construction period.

4.3 The accompanying CTMP confirms that confirms that deliveries could be made by HGVs associated with the construction of the solar farm and associated development, at an average of around 6 deliveries, or 12 movements per day.

4.4 The components which are required to construct the solar farm will arrive in 40ft containers by 15.4m long articulated vehicles.

4.5 The largest items expected to be transported to the site are the battery storage containers and plant to be used in the Substation. The proposed solar farm could have a total of up to 11 battery stations (each containing battery containers, inverter container and DC-DC converter boxes) and it is assumed that each will be transported by a vehicle no longer than a 15.4m articulated HGV. The battery storage containers will be transported individually to divide their weight and as such this would equate to a total of up to 22 deliveries.

4.6 The Distribution Network Operator (DNO) will install the Substation, which connects the development to the overhead line which crosses the site to export the renewable energy generated to the local electricity distribution network.

4.7 It is proposed to locate the temporary construction compound in the southern portion of the site adjacent to the proposed Substation. This will be where all deliveries are made throughout the construction process. Smaller vehicles will then distribute materials and plant.

4.8 Vehicular access for maintenance purposes is proposed via Bridle Farm Road. The access will link to a network of internal tracks around the site.

4.9 Once in full operation, the development will not generate any significant traffic movements, with security and maintenance staff the only likely infrequent visitors who will use the network of internal tracks.

4.10 Pedestrian access to the solar farm will be restricted for security purposes to prevent theft and vandalism.

4.11 Public Rights of Way (PRoW) that pass through and in close proximity to the site, will be retained and protected as part of the proposed development with new hedgerow planting proposed in between the PRoW and Solar Farm fence line following comments received during consultation.

5. SUMMARY AND CONCLUSIONS

5.1 The Design and Access arrangements of the Proposed Development have been assessed. It is considered that due to the benign appearance of the scheme and the natural screening afforded to the site, that the development proposals will not have an unacceptable adverse effect on the visual or amenity value of the wider countryside.

5.2 The site and extent of development have been carefully selected. It is naturally screened and supplemented by additional planting which, coupled with its low-profile physical height of the solar panels, battery stations and associated equipment, filters and screens views of the site. Due to the low profile of the panels, they would not be easily perceptible in most distant views from publicly available viewpoints and the layering effect of the intervening vegetation will successfully integrate them into the landscape particularly during the summer months.

5.3 The equipment forming the development proposals has been selected on the basis of maximising efficiency and productivity, but also to minimise visual effects where possible.

5.4 Safe access can be taken into the site from the public highway and within the site. Mitigation measures will be employed to ensure construction traffic is managed appropriately as outlined within the CTMP.

5.5 Overall, the proposals are appropriate in terms of design and access and the development represents a necessary step towards meeting the UK's legally binding climate change and renewable energy obligations. It is therefore considered that the application before the Council be supported and planning permission granted.

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