

in partnership with



**Nottinghamshire
County Council**

Miss Honor Whitfield
Planner
Planning Policy Business Unit,
Newark and Sherwood District Council,
Castle House,
Great North Road,
Newark,
Nottinghamshire,
NG24 1BY

Your ref: 20/01242/FULM
My ref: TP20250708
Date: 18th September 2020

Dear Honor,

Re: Planning Application Reference – 20/01242/FULM

Location – Land north of Halloughton, Southwell, Nottinghamshire

Proposal - Construction of a solar farm and battery stations together with all associated works, equipment and necessary infrastructure.

Applicant – JBM Solar Projects 6 Limited

1.Introduction

The following comments have been prepared by Helen Jones of Via East Midlands Limited, acting as a landscape consultant to Newark and Sherwood District Council (NSDC). These comments have been formulated on the basis of the submitted information detailed below. A site visit was made to the study area and representative viewpoints by Helen Jones on 26th August 2020.

The Environmental Management and Design (EMD) Team have examined the following information to make these comments (only information that is relevant to Landscape and Visual Impact is listed below).

Documents

- Application Form dated 7th July 2020
- Agricultural Land Classification Report – Davis Meade – 16th April 2019
- Arboricultural Impact Assessment – Barton Hyett Associates – Revision A 26th June 2020
- Construction Traffic Management Plan – Pegasus Group – July 2020 AJ/OJBS/AG/BB P18-2917
- Design and Access Statement – Pegasus Group – July 2020 SC/OH/RG P18 - 2917
- Ecological Assessment Report - Avian Ecology – JBMSo -592-1248 version 2 - 9th July 2020

- Biodiversity Management Plan – Avian Ecology - JBMSO -592-1248 version 2 - 9th July 2020
- Flood Risk Assessment – Calibro – BR-629-0007 revision 03 – 2nd July 2020
- Solar Photovoltaic Glint and Glare Study – Page Power – G530A – version 2 – 7th July 2020
- Heritage Assessment – Pegasus Group – July 2020 RGO – P18 -2917
- Landscape and Visual Impact Assessment – Pegasus Group - July 2020 – P18-2917 19A
- Planning Statement – Pegasus Group – July 2020 SC/OH/RG P18-2917/PL
- Statement of Community Involvement – Pegasus Group – July 2020 SC/OH/RG P18 -2917 PL

Comments on the application

- NCC Highways – Newark area - HW – 16th July 2020
- Tree consultant – Graham Wilson to HW - North Kesteven District Council – 27th July 2020
- NCC Rights of Way – Sue Jarczewski to HW - 28th July 2020 and 13th August 2020
- Nottinghamshire Wildlife Trust – Elizabeth Cope to HW - 2nd September 2020
- Neighbour or public comments – various dates

Drawings

- Site location plan – Drawing reference P18-2917_02 Rev D – Pegasus Environment 15 April 2020
- Site layout and Planting Proposals – Drawing Reference P18-2917 _12 Rev H – Pegasus Environment 29 June 2020
- Indicative WPD and Customer Compound Layout – HLG-01- 2002 Rev 01 Sheet 1 of 1 – HVSS – 7th February 2020
- Indicative WPD and Customer Compound Elevations – HLG-01- 2002 Rev 01 Sheet 1 of 1 – HVSS – 7th February 2020
- Typical Fence, track and CCTV Details – JBM- HALLOU- SD 02 – Helioworks 16th March 2020

- Typical Trench Section Details – JBM- HALLOU- SD 03 – Helioworks 16th March 2020
- Typical Inverter Substation Details – JBM- HALLOU- SD 04 – Helioworks 16th March 2020
- Typical Spares Container Details – JBM- HALLOU- SD 05 – Helioworks 16th March 2020
- Typical Battery Storage Systems Details– JBM- HALLOU- SD 06 rev A – Helioworks 22nd May 2020
- Typical Customer Switchgear Details– JBM- HALLOU- SD 07 rev A – Helioworks 21st May 2020

2. Background

A Landscape and Visual Impact Assessment (LVIA) accompanies the full planning application. An independent review of this document by a qualified Landscape Architect was requested by NSDC from the Environmental Management & Design (EMD) Team of Via East Midlands and these comments are provided here.

3. The existing site and study area

A study area of 3 kilometres has been defined by the applicant within the LVIA report , which is accepted by the EMD Team considering the scale and type of the development proposed.

The proposed site is within the administrative district of Newark and Sherwood District Council, and within the area of jurisdiction of both Southwell and Halloughton Parish Councils, with approximately half of the proposed site located in each parish area. The proposed site is to the north western edge of the village of Halloughton, and 2.6 km from the village of Halam to the north. The largest adjacent settlements are the town of Southwell 2.7 km to the north east, and the larger town of Newark on Trent, 10 km to the east of the proposed site. Isolated farms in the area include New Radley Farm - with access off B6386 Oxtan Road, Stubbins Farm – to the east of the proposed site (off Stubbins Lane), and Halloughton Wood Farm – to the south west of the proposed site.

The land use of the surrounding study area is predominately agricultural, but also contains transport infrastructure connecting the surrounding villages with the town of Southwell, the site of the 12th century Southwell Minster and many other listed buildings. The A612 connects Halloughton to Southwell and several roads converge in Southwell, the B6386 Oxtan Road, Lower Kirlington Road, and Hockerton Road.

There are many small to medium woodland blocks within the study area. Halloughton Wood to the immediate south west of the site is classified as a replanted ancient woodland. There is also riparian woodland vegetation along small watercourses and dumble woodlands such as that of the Westhorpe Dumble which crosses the centre of the site. There are also well established mixed mature hedgerows with trees throughout the site, these contain tree species such as ash, oak and

scots pine, and hedgerow species such as blackthorn, dog rose, elder, field maple, hazel, and hawthorn.

The study area has a gently sloping landscape containing deeper steep sided Dumble valleys such as Westhorpe Dumble. Generally, the land slopes away to the east towards Southwell which sits at 40 -50 AOD in the valley of the River Greet. To the south east of the site the landform slopes towards the River Trent which flows in a north east south west orientation towards Newark on Trent.

Heritage designations

The whole of the built area of the village of Halloughton is a Conservation Area and has the following listed buildings:-

C13 Tower House at Halloughton Manor Farm - grade II* listed

The church of St James, Halloughton - grade II listed

Pigeoncote, granary and stable block at Manor Farm - grade II listed

Barn at Halloughton Manor Farm - grade II listed

Barn at Bridle Road, Farm - grade II listed

The centre of the town of Southwell to the north east is also a Conservation Area with many listed buildings including Southwell Minister which is Grade 1 listed (the Minster Church of St Mary the virgin and Chapter House, and the Bishops Manor and remains of Bishops Palace). The Conservation Area extends into the Westhorpe area of Southwell which lies to the north east of the proposed site area.

Ecological designations

There is one Site of Special Scientific Interest (SSSI) within the study area.

Newhall reservoir meadow – 1.7 km north west of the site.

The following Local Wildlife Sites are within 3 km of the site:-

Cotmore Lane Ref 2/719– within the northern area of the site

Radley House Scrub Ref 5/3390 – within the northern area of the site

Westhorpe Dumble Ref 2/524 – within the centre of the site

Westhorpe Dumble Head Drain Ref 2/724 – within the centre of the site

Halloughton Wood Ref 2/532 – immediately adjacent to the south west corner of the site

Cotmore Plantation Ref 2/723 – 0.3km west

Brackenhurst Ref 2/729 – 0.4 km west

Halloughton Verge Ref 2/525 – 0.6 km south east

Oxton Road woodland 5/3388 – 0.6kmwest

Halloughton Dumble Ref 2/540 – 0.6 km south west

Radley road grassland Ref 5/3391 – 0.6 km north west

Epperstone Dumble (north) Ref 2/531 – 1.7 km south west

Epperstone Dumble (south) Ref 1/113 – 3 km – south west
Foxhole Wood Ref 2/514 – 3 km south west
Thristley Coppice Ref 2/518 – 3 km south west
Halam Osier beds Ref 5/174 – 3km north east

Public Rights of Way

There is a network of PRowS within the study area, these are referred to in the LVIA by the numbers in brackets)

Southwell Footpath 43 – (209/43/2) – passes from the B6386 Oxtan Road towards the northern edge of site before connecting with Southwell Footpath 42 (209/42/1)

Southwell Footpath 43 (209/43/1) – is located within northern extent of the site and continues in an easterly direction towards Southwell.

Southwell Footpath 42 – (209/42/1) – continues in a southerly direction before connecting with Southwell Byway 80 (209/80/2).

Southwell Byway 80 (209/80/2) - passes along the edge of Cotmore Plantation, to the west of the site.

Halloughton Byway 9 – (186/9/1) – passes along the edge of Cotmore Plantation, to the south west of the site.

Southwell Bridleway 74 (209/74/1) - crosses the central portion of the site, and continues past Stubbins Farm towards Cundy Hill Road.

Bridleway Halloughton 3 186/3/1) – lies to the south of Halloughton.

The long-distance footpath the Robin Hood Way passes to the east of the proposed site (at this point Southwell Footpath 37 – 209/37/2) and then up on to a ridgeline to the north of the site.

The proposed site

The proposed site may be divided into 2 halves, a northern section and a southern section separated by Southwell Bridleway 74 (209/74/1). The proposed site has an area of 107.81 hectares (taken from the application form dated 07.07.2020) and comprises 13 fields.

The land use of the proposed site is grazing pasture and cereal production, there is a single High Voltage power line passing from east to west, into which the solar farm electrical supply will connect; and a single line of telegraph poles to the far eastern side of the site.

The proposed access to the site is off Bridle Farm Road, which is a single track road which forms the main street through Halloughton Village. The road is not a through road but joins the access track into Halloughton Wood Farm. The proposed site access passes along a field boundary and adjacent to a small copse of plantation woodland to emerge onto Bridle Farm Road at the entrance to the village of Halloughton.

The boundaries of the proposed site are predominantly hedgerows with trees, some of the hedgerows are mature mixed species hedgerows. Small linear belts of trees are dotted throughout the area. Westhorpe Dumble crosses the centre of the site on an east west axis with riparian vegetation, including mature trees along its course. Other small bands of riparian vegetation occur along smaller watercourses within the site.

The highpoint of the site is at 93m AOD in the far northwest corner, the lowest point is near to proposed site access in south east corner of the site at a height of 60m AOD.

The closest residential dwelling is New Radley Farm within the northern extent of the site, but which is excluded from the application area. Other close buildings include Stubbins Farm to the east of the centre of the site, Halloughton Wood Farm to the south west of the south east extension of the site and Thorney Abbey Farm on the B6386 to the north of northern boundary of the site.

Manor Farm on the north western edge of Halloughton village is approximately 215 metres from the closest point of the site boundary. There is also another group of houses which extend out from the north western edge of Halloughton village – Pear Trees, Orchard End and two further properties to the north of these (adjacent to viewpoint 11) which are approximately 85 metres from the site boundary.

4. The proposed development

The proposed development consists of 3 parts, all of these form part of the planning application area, including the 132kv substation:-

- The 132 kv substation which connects the main site to the electricity grid,
- The main site compound which will contain the ground mounted solar panels, with associated technical infrastructure inverters, a substation compound, as well as fencing , security cameras, 4.5 metre access tracks and a temporary construction compound
- The access track to the site is connected to Bridle Farm Road, Halloughton.

As shown on Site layout and Planting Proposals – Drawing Reference P18-2917 _12 Rev H – Pegasus Environment 29 June 2020.

Substation

This is shown on the following drawings:-

Indicative WPD and Customer Compound Layout – HLG-01- 2002 Rev 01 Sheet 1 of 1 – HVSS – 7th February 2020

Indicative WPD and Customer Compound Elevations – HLG-01- 2002 Rev 01 Sheet 1 of 1 – HVSS – 7th February 2020

Typical Customer Switchgear Details– JBM- HALLOU- SD 07 rev A – Helioworks 21st May 2020

The substation compound is situated in the southern half of the development and on the southern edge of the site. This compound will contain a control room, a switchgear room, and a transformer building which will connect, through disconnectors and circuit breakers, to pylons and the main DNO network. This compound will be surrounded by a 2 metre-high security palisade fence and will have pole mounted CCTV at a height of 3 m.

The height of the control room, switch gear room and transformer building will be 3.2 metres.

The height of the structures which connect with the existing pylons should be confirmed by the applicant.

The substation compound has been located where there are two blocks of existing woodland to the south west and south east which will provide some screening of the smaller buildings from the north western edge of the village of Halloughton.

The main solar farm site

This is shown on the following drawings:-

Site layout and Planting Proposals – Drawing Reference P18-2917 _12 Rev H – Pegasus Environment 29 June 2020

This will include the following components:-

Solar panels – the solar farm itself will consist of a linear array of panels mounted on a rack supported by metal poles, which would be pile driven or screwed into the ground to a depth of 1- 2 m to avoid the need for excavations. Between each string of panels there would be a distance of 4 – 10 metres to avoid inter panel shading. The panels will be mounted at around 0.8 -1050mm from the ground at the lowest point and will have a maximum height of 3 metres. The panels will be tilted between 15 and 25 degrees orientation to face due south towards the sun

Refer to drawing - Typical PV Table Details 3P rev A – JBM Solar - 16th June 2020

Refer to drawing - Typical PV Table Details rev A – JBM Solar - 16th June 2020

Battery Containers and Converter Boxes - 11 number – size 2900mm height x 12490mm length x 2440mm width, these will be located throughout the site at the edge of the fields of solar panels.

Refer to drawing - Typical Battery Storage Systems Details– JBM- HALLOU- SD 06 rev A – Helioworks 22nd May 2020

The colour of the various cabins has not been detailed at this stage; this information should be provided as a condition of the application. As the cabins are likely to be viewed against the landscape rather than the skyline, we would suggest that a green or grey brown colour would be the least intrusive.

Deer fence - A 2 m high timber post and mesh security fence (deer proof) will be erected around the perimeter of the site and between the areas of solar panels and the Public Rights of Way which pass through the Site.

Refer to drawing - Typical Fence, track and CCTV Details – JBM- HALLOU- SD 02 – Helioworks 16th March 2020

Access tracks - within the site, tracks will provide access to the substation and inverters. The tracks will be approximately 4.5 m wide (source Construction Traffic Management Plan) and will be constructed from stone on top of a geotextile membrane.

Refer to Drawing - Typical Fence, track and CCTV Details – JBM- HALLOU- SD 02 – Helioworks 16th March 2020

The Site will be accessed from Bridle Farm Road, the main road through the village of Halloughton. Full details of the access are available in the Construction Traffic Management Plan (Construction Traffic Management Plan – Pegasus Group and the Design and Access Statement. (Design and Access Statement – Pegasus Group).

Cables and trenches - cables buried in trenches will link the solar panels to the inverters and the substation

Refer to Drawing - Typical Trench Section Details – JBM- HALLOU- SD 03 – Helioworks 16th March 2020

Temporary Construction compound - A Temporary Construction Compound will be located within the application area which will be covered over with solar panels on completion. The length of the construction period will be 14-16 weeks. **The location of this temporary construction compound should be clarified by the applicant as this is shown on the key of the layout drawing but not clearly shown on the drawing itself.**

5. Physical Landscape Impact

An arboricultural assessment has been provided by the applicant (Arboricultural Impact Assessment – Barton Hyett Associates – March 2020 – reference 3180 Rev A – 26th June 2020 – updated layout)

This identifies 60 trees, 48 tree groups and 33 hedgerows within the proposed site area. Of these 19 trees and 13 tree groups are categorised as Category A High quality. T13, T16, T38, T42 are proposed to be felled for Arboricultural reasons. The report concludes that no trees, tree groups will require removal in their entirety. Sectional removals will be necessary to allow new access track to be constructed and allow access between fields, as well as minor sections (each of 1 metre) to allow the new perimeter fence to be installed.

With the proposed access to the site being by an existing farm track, there is potential for soil compaction and this area contains a high-quality tree group (G7) and a moderate quality tree group (G1). Therefore 100 linear metres of ‘no dig’ construction is proposed in this area to ensure that the root systems in this area is not compacted during construction. This area will have a sacrificial surface which will be removed after construction. Some canopy lifting of tree groups G1, G7 and G48 will also be required. However, these works will be in a limited area of the site and all other Infrastructure on site will have a low negative potential impact on existing vegetation.

The Construction Traffic Management Plan (Construction Traffic Management Plan – Pegasus Group) does not indicate that any additional hedgerow will need to be removed to create visibility splays at the site entrance on to Bridle Farm Lane. **However, the NCC Highway comments (NCC Highways – Newark area - HW – 16th July 2020) does indicate that a mature Poplar tree belonging to the Highway Authority at the entrance to Halloughton village will need to be removed. This is a prominent tree at the entrance to the village and does not appear to be included in the Arboricultural Impact Assessment. The applicant should confirm if this tree will need to be removed or not.**

Therefore, the physical landscape impact as a result of the proposed development is **low** provided that the mature Poplar does not need to be removed. **An Arboricultural Method statement and a finalised tree protection plan will be required as a condition of the application.**

6. Impact on the Landscape Character

At a national level the proposed site is located in Natural England National Character Area 48 –Trent and Belvoir Vales.

At a regional level the site is located in Regional Landscape Character Type group 5 Village farmlands and division 5b wooded Village farmlands, of the East Midlands Regional Landscape Character Assessment.

At a local level the northern section of the application site is in the Mid Nottinghamshire Farmlands Landscape Character Area - Policy Zone 37 – Halam Village Farmlands with Ancient woodlands

For the Policy Zone 37 – Halam Village Farmlands with Ancient woodlands - the landscape condition is assessed as **very good** and the landscape sensitivity as **high** . The Policy Zone landscape action is **Conserve**.

The Policy Zone has the following characteristic features:-

- Very gently undulating and rounded topography.
- Medium distance views to frequently wooded skylines, although often enclosed by vegetation – hedgerows, woodland etc.
- Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture.

The Policy Zone has the following Landscape actions:-

Landscape Features

- Conserve hedgerows and prevent fragmentation (through lack of management and intensification of arable farming).
- Conserve historic field pattern by containing and limiting any new development within historic enclosed boundaries.
- Conserve the ecological diversity and setting of the designated SINCs.
- Conserve and enhance tree cover and landscape planting generally to improve visual unity and habitat across the Policy Zone.

Built Features

- Conserve the rural character of the landscape by limiting any new development to around the settlement of Halam.
- Maintain use of vernacular materials, style and scale in any new developments.
- Promote measures for reinforcing the traditional character of existing farm buildings using vernacular building styles.

The southern section of proposed site is in Mid Nottinghamshire Farmlands Policy Zone 38 — Halloughton Village Farmlands the landscape condition is assessed as **good**, and the landscape sensitivity as **moderate**. The Policy Zone Landscape action is **Conserve and Reinforce**.

The Policy Zone has the following characteristic features:-

- Very gently undulating and rounded topography.
- Medium distance views to frequently wooded skylines, although often enclosed by vegetation – hedgerows, woodland etc.
- Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture.
- Small commercial agriculture – Mushroom Farm, Strawberry Poly tunnels.
- Small industrial estate
- Leisure facilities surrounding Southwell – Golf Course, Horsey-culture, Sports Fields.

The Policy Zone has the following Landscape actions:-

Landscape Features

- Conserve and reinforce hedgerows where these are gappy and in poor condition, particularly internal hedgerows.
- Seek opportunities to restore the historic field pattern/boundaries where these have been lost and introduce more hedgerow trees.
- Reinforce with new planting to replace post and wire fencing.
- Conserve and Reinforce the ecological diversity of Norwood Park and other designated SINCs where appropriate.

Built Features

- Conserve the local built vernacular and reinforce this in new development.
- Conserve and reinforce the rural character of the Policy Zone by concentrating new development around existing settlements of Southwell and Halloughton.
- Recognise the contribution of existing heritage assets within Southwell, visible from the northern part of this DPZ, to the wider landscape character
- Ensure that development proposals address the policy approach set by the Core Strategy and Allocations and Development Management DPD, taking account of the Southwell Landscape Setting Study (November 2012)

A section of the southern part of the proposed site is within the Mid Nottinghamshire Farmlands Landscape Character Area - Policy Zone 39 –Thurgaton Village Farmlands with Ancient woodlands. **This is not included in the description by the applicant, therefore information about PZ 39 should be added to this section of the LVIA.** The landscape condition is assessed as **very good**, and the landscape sensitivity as **high**. The Policy Zone Landscape action is **Conserve**.

The Policy Zone has the following characteristic features:-

- Very gently undulating and rounded topography.
- Medium distance views to frequently wooded skylines, although often enclosed by vegetation – hedgerows, woodland etc.
- Mixture of intensive arable fields with strongly trimmed hedges and some low intensity farming with permanent improved pasture.
- Numerous blocks of woodland and plantation, of varying scale.
- Predominantly vernacular settlements and dwellings.
- Good network of mainly intact and well-maintained hedgerows.

The Policy Zone has the following Landscape actions:-

Landscape Features

- Conserve permanent pasture and seek opportunities to restore arable land to pastoral.
- Conserve hedgerow planting along roadsides, seek to reinforce and enhance as appropriate.
- Conserve the biodiversity and setting of the designated SINCs, seek to enhance where appropriate.
- Conserve and enhance woodland/plantation blocks, seek to reinforce green infrastructure as appropriate.

Built Features

- Conserve the rural character of the landscape by concentrating new development around existing settlements.
- Conserve and respect the local architectural style and local built vernacular in any new development

Impact on the landscape features of the site

The LVIA considers the impact of the proposed development on a number of elements within the site, these are topography, trees and hedgerows and land cover.

Topography – the variations of topography in the landscape in which the site is located are typical of the wider vale landscape and therefore the value as a landscape element is low, landscape susceptibility is low because minimal excavation is required in order to construct the scheme, which leads to a **low** landscape sensitivity.

Changes to the topography of the site would be due to trenching for cabling, digging foundations for ancillary structures, supply and fixing of fencing and creation of a temporary construction compound. This is assessed as causing a negligible magnitude of change on the topography.

A low sensitivity combined with a negligible magnitude of change will have a negligible effect on topography, this is agreed by the EMD Team.

Trees and hedgerows – the boundaries of the site are mature hedgerows with mature hedgerow trees including oak, ash and scots pine which are assessed as having medium value and medium susceptibility for hedgerows, and a high susceptibility for trees due to the length of time they would take to establish and mature. The magnitude of change is assessed as low beneficial because the existing hedgerow and tree frameworks would be enhanced by gapping up and replanting.

A medium – high sensitivity combined with a low beneficial magnitude of change will lead to a minor – moderate beneficial effect on trees and hedgerows within the site, this is agreed by the EMD Team.

Landcover – the existing site is in agricultural use which is of low landscape value and low susceptibility and of low sensitivity. This will change to an area of solar panels set in a species rich grassland with a framework of hedgerows.

Physically the magnitude of change is high but the applicant states this is offset by the improvements in ecological bases and concludes that **a medium magnitude of change combined with a low sensitivity would lead to a minor beneficial change in landcover.**

The EMD Team do not agree with this statement in that it is focussed on the biodiversity aspects of the change and not on the perception of the change in the landscape. The applicant should revise their assessment to fully evaluate the perception of change in the landscape and provide further clarification on this issue.

Impact on the character of Landscape Policy Zones MN 37, 38 and 39

National landscape character – There are no statutory landscape designations within the study area. The landscape is assessed as being of medium value. The scheme will lead to loss of 100 ha of Trent and Belvoir vales landscape character area but there will be a net gain in the biodiversity of the NCA as a result of improvements in the hedgerow resource and additional tree planting. **This will lead to a negligible effect on the landscape character as a whole, the EMD Team agree with this conclusion.**

Regional landscape character – The landscape is assessed as being of medium value. The scheme will lead to loss of 100 ha of woodland village farmlands regional landscape type but there will be a net gain in the biodiversity of the RLCA as a result of improvements in the hedgerow resource and additional tree planting. **This will lead to a negligible effect on the landscape character as a whole, the EMD Team agree with this conclusion.**

Local Landscape character - The applicant states that the scheme will retain and enhance characteristics of Policy Zones 37, 38 (and 39) which range from medium – high landscape sensitivity. **The magnitude of change on these policy zones is assessed as low which will lead to a moderate beneficial effect on all of the policy zones.**

The EMD Team do not agree with this conclusion in that as above it is focussed on the biodiversity aspects of the change and not on the perception of the change in the landscape. The applicant should revise their assessment to fully evaluate the perception of change in the landscape and provide further clarification on this issue.

Discussion

The EMD Team consider that the majority of the landscape assessment is accurate, and areas of agreement are detailed above. However, the EMD Team consider that it is more accurate to conclude that the impact of the proposed development on the landscape character of the Policy Zones will lead to a high magnitude of change on an area of high or medium sensitivity to change, which would lead to a **major scale of effect** on the Policy Zones. However, this will only be in an area close to the site within the actual zone of visual influence, outside of this area the effects on the local landscape will decrease to negligible rapidly. The applicant needs to define the area over which these adverse effects occur, which is in turn related to the visual assessment below. **Whilst there are undoubtably ecological benefits of the proposed scheme resulting in a biodiversity net gain, this needs to be separated from the physical changes to the landcover of the site which can only be described as high and adverse, the applicant needs to reconsider this issue.**

What has also not been included as part of this assessment is the landscape effect at the construction stage of the project, and not just the visual effect of the proposed access route on the village of Halloughton, which is designated as a Conservation area and with adjacent listed buildings such as the church of St James. **There will be a change in the perception of the landscape character of the village of Halloughton at the construction stage due to the presence of the access road emerging on to Bridle Farm Lane, the main route into the village, caused**

primarily by visual presence of construction vehicles, this effect has not been assessed and needs to be considered by the applicant .

7. Landscape Mitigation Proposals

The landscape proposals are shown on Site layout and Planting Proposals – Drawing Reference P18-2917 _12 Rev H – Pegasus Environment 29 June 2020. These consist of the planting of new hedgerows and infilling of gaps in the existing hedgerows to improve the site screening and retain the framework of hedgerow around the 13 fields in which the solar panels are to be located. In addition, there is an area of woodland planting, as well as the inclusion of swales. The detail of the landscape mitigation proposals, including the management of the features proposed, is described in the Biodiversity Management Plan (Avian Ecology - JBMSo -592-1248 version 2 - 9th July 2020).

The Biodiversity Management Plan is based on the Biodiversity Guidance of Solar developments (BRE 2014). It describes the attributes and maintenance regime for 1200m² of new planting included in the project. Elements of the design include:-

- 1000 m of new and infill hedgerow planting. It is confirmed that the species selection is compatible with the Mid Nottinghamshire Farmlands landscape character area.
- 0.43 ha of tree planting to create a 15-metre-wide tree belt to the south of the site , again species selection is compatible with the Mid Nottinghamshire Farmlands landscape character area.
- Species rich grassland to the solar park area – to be a Solar Park long term grazing mix, to be managed by either grazing or mechanical cutting.
- Field margins to be sown with Emorsgate EM2 standard general-purpose meadow mix.
- Swales – with a base width of 0.5m and a depth of 0.5 metres, these are primarily to accommodate runoff abut will also have biodiversity benefits , these are located to the south of the site adjacent to the substation area, and to the eastern edges of the site.
- Bird and bat boxes.

In addition to the above drawing and description, a summary of the enhancement measures should be provided in the LVIA document, this is in order that the focus of the description is based on the mitigation of landscape and visual effects rather than purely biodiversity aims.

8. Visual Impact

The applicant has selected 18 representative viewpoints to analyse the visual impacts of the proposed scheme. These viewpoints were agreed in advance with NSDC, and with the EMD team of Via East Midlands, and an additional 3 viewpoints (A,B and C) were requested from locations of heritage interest by NSDC, and an additional 1 viewpoint by Via East Midlands (viewpoint 18). It is noted that the viewpoint photographs have been taken in summer 2019 when the trees and hedgerows were in full leaf, in accordance with the Guidelines for Landscape and Visual Impact Assessment (GLIVA3) viewpoint photographs should also represent seasonal changes. **It is recommended that a set of viewpoint photographs is also included in the LVIA that shows the representative views and 3 additional heritage viewpoints when the vegetation is not in leaf.**

The landscape consultant has prepared a ZTV drawing using digital terrain data (Figure 8 – Screened Zone of Theoretical Visibility - Landscape and Visual Impact Assessment – Pegasus Group). The visual impact of the development has been assessed at 3 m height to represent the general level of the highest point of the panels.

The applicant has identified that the Screened ZTV forms a constrained area extending out from the boundary of the site, with additional outlying areas of theoretical visibility on higher ground to the north west, north east, south east, and with a distinct, small area to the south of Southwell and to the east of the site. The ZTV covers the whole of the village of Halloughton. These visual impacts have been described in the LVIA and the sensitivity of the receptors and the magnitude of change as a result of the development has been assessed. These visual impacts have been summarised by the EMD team in the table below and the results discussed in the following section. The visual impacts are described at year 1 and Year 10 of the project.

Construction stage

No visual assessment has been made of the construction stage of the project. The construction stage is predicted to be 14 -16 weeks. In order to reduce visual impact during the construction stage and throughout the project, the substation compound has been located to the north west of a block of existing woodland which partially shields views of this part of the project from Halloughton to the south. **The applicant should provide additional information about the visual impact of the structures which connect with the existing pylons in this section of the LVIA.**

The other visual impact of the construction stage will be from vehicles bringing the components for the solar farm to the site. This is assessed to be on average 12 two-way movements per day during the construction period which will access the site from Bridleway Lane, Halloughton. **It is not known if alternative routes had already been ruled out due to the impact on surrounding areas, the applicant should confirm this, and provide additional information about why this particular access route has been chosen.**

Summary of scale of visual effect at Year 1 and Year 10

The views from the 18 representative viewpoints, and 3 additional heritage viewpoints are summarised by the EMD Team below. Any text in red is an EMD Team addition, where the EMD Team and the applicant do not reach the same conclusion, this is discussed below.

Viewpoint reference	Receptor type and sensitivity	Magnitude of change – year 1	Scale of Visual Effect – year 1	Scale of Visual Effect – year 10	Distance from site boundary
VP1-view from PRow bridleway 209/74/1 looking east	Recreational High sensitivity	Medium magnitude of change	Major scale of effect	Negligible scale of effect	76m
VP2 – view from PRow bridleway 209/74/1 looking west	Recreational High sensitivity	High magnitude of change	Major scale of effect	Moderate or? negligible Scale of effect Applicant to confirm if moderate or negligible, or moderate to negligible	0m
VP3 – view from PRow bridleway 209/74/1 looking west	Recreational High sensitivity	Low magnitude of change	Moderate scale of effect	Negligible Scale of effect	81.7m
VP4 – view from PRow bridleway 209/74/1 looking south	Recreational High sensitivity	Medium magnitude of change	Major scale of effect	Moderate to negligible Scale of effect	123.2 m
VP5 – view from PRow bridleway	Recreational High sensitivity	Negligible magnitude of change	Negligible Scale of effect	Negligible Scale of effect	137.7m

209/74/1 looking south west		(due to dense belts of trees and well- established hedgerows)			
VP6 – view from Robin Hood Way Long distance footpath looking south west	Recreational High sensitivity	Negligible magnitude of change	Negligible Scale of effect	Negligible Scale of effect	819.8m
VP7 – view from unnamed local road looking west	Traveller Medium	Negligible magnitude of change	Negligible Scale of effect	Negligible Scale of effect	38.7m
VP 8 – View from the eastern edge of Halloughton looking north	Traveller Medium	Low magnitude of change	Minor scale of effect	Minor scale of effect	9.4m
VP9 – view from the churchyard of the church of st James, Halloughton looking north	Visitor to churchyard Medium	Low magnitude of change	Minor scale of effect	Minor scale of effect	75.9m
VP10 - View from PRoW bridleway 186/3/1 looking north	Recreational High sensitivity	Low magnitude of change	Moderate scale of effect	Negligible Scale of effect (due to maturing vegetation)	416m
VP11 – View from western edge of Halloughton , looking north	Traveller Medium	Low magnitude of change	Minor scale of effect	Negligible Scale of effect	229m

VP12 – View from southern extent of Cotmoor byway looking northeast	Recreational High sensitivity	Low magnitude of change	Moderate scale of effect	Negligible Scale of effect (due to maturing vegetation)	356.6m
VP13 – View from PRoW footpath 209/42/1 looking south east	Recreational High sensitivity	Low magnitude of change	Moderate scale of effect	Negligible Scale of effect	7.8m
VP14 – View from PRoW footpath 209/42/1 on the access track to New Radley Farm	Recreational High sensitivity	Medium magnitude of change	Major scale of effect	Moderate to negligible Scale of effect	10.4m
VP15 – View from PRoW footpath 209/43/1 looking south	Recreational High sensitivity	High magnitude of change	Major scale of effect	Major scale of effect	0m
VP16 – View from PRoW footpath 209/43/1 looking west	Recreational High sensitivity	Low magnitude of change	Moderate scale of effect	Negligible scale of effect	46.6m
VP17 – View from PRoW footpath 209/43/2 on the access track to New Radley Farm, looking south west	Recreational High sensitivity	Negligible magnitude of change	Negligible scale of effect	Negligible scale of effect	149.4m
VP18 – View from Robin Hood Way Long Distance footpath on	Recreational High sensitivity	Negligible magnitude of change	Negligible scale of effect	Negligible scale of effect	1783.4m

Newhall Lane, looking south east					
Heritage A – View from Fiskerton Road near Brinkley Hall Farm, looking south	Traveller medium	Negligible magnitude of change	Negligible scale of effect	Negligible scale of effect	Applicant to confirm distance from proposed site boundary
Heritage B – View from PRow footpath 209/12/1, looking southwest	Recreational High sensitivity	Negligible magnitude of change	Negligible scale of effect	Negligible scale of effect	Applicant to confirm distance from proposed site boundary
Heritage C – View from the Grounds of Southwell Minster	Recreational High sensitivity	Negligible magnitude of change	Negligible scale of effect	Negligible scale of effect	Applicant to confirm distance from proposed site boundary

Discussion

The EMD Team is in agreement with the conclusions of the visual assessment for year 1 of the proposed scheme for the 18 representative viewpoints, and heritage viewpoints A and C. However, we are not in agreement with the assessment from Heritage viewpoint B from PRow footpath 209/12/1, looking southwest (Southwell Footpath 11 on the Southwell Heritage trail 2), this point is located on the high ground to the south of Southwell and to the east of the site and there is a distant view of the southern half of the site. **We consider the scale of effect for Heritage viewpoint B should be minor for year 1 only.**

For Year 10 of the visual assessment for some of the viewpoints, the change in scale of effect from year 1 to year 10 is large, for example for viewpoint 1 the scale of effect at year 1 is Major and this declines to negligible by year 10. This large scale of change relies totally on the successful

establishment of the proposed hedgerows and the effective management of the existing hedgerows. **The applicant should reconsider the year 10 impacts and confirm that this degree of change is accurate.**

The visual impact of the proposed scheme on residential properties , including from the north eastern edge of edge of Halloughton.

The visual assessment does not include any assessment from any residential properties which are normally considered to be of high sensitivity. Whilst it is accepted that the area to the north west of the village of Halloughton is not publicly accessible by Public Rights of Way; nevertheless an assessment of views of the site can be made from aerial photographs considering the amount of boundary vegetation to the properties and the distance from the boundary of the site.

This is a major omission in the LVIA considering that this area is approximately 200metres from the boundary of the proposed site and this information should be added either as a schedule of effects or as a written description. Similarly, the extent of views from the isolated farms - New Radley Farm, Stubbins Farm, Halloughton Wood Farm and Thorney Abbey Farm within the study area should also be recorded, even if the views are screened by surrounding mature vegetation.

9. Cumulative effects

No consideration of any cumulative visual impact has been made in the LVIA. **The applicant should consider if there are any similar developments registered in the planning system within the study area and if there are, assess the cumulative impacts of schemes. If there are none proposed of a scale and type, then this should be stated.**

10. Summary

- The LVIA has been carried out to the accepted best practice which is the Guidelines for Landscape and Visual Impact Assessment (GLIVA3) Third Edition published by the Landscape Institute and Institute of Environmental Managers and Assessment (April 2013), and the photography practice note – Landscape Institute 2019 Visual Representation of Development Proposals. Technical Guidance Note 06/19, with the exception of the issue noted below concerning the lack of viewpoint photographs when trees and hedgerow are not in leaf.
- The landscape assessment has referred to national, regional and local landscape character assessments. Only negligible landscape impacts have been identified on the national and regional landscape character types, which is agreed by the EMD Team.

- A section of the southern part of the proposed site is within the Mid Nottinghamshire Farmlands Landscape Character Area - Policy Zone 39 –Thurgaton Village Farmlands with Ancient woodlands, information about PZ 39 should be added to this section of the LVIA.
- The location and size of the temporary construction compound should be clarified by the applicant, as this is shown on the key of the layout drawing but not shown clearly on the drawing itself.
- The NCC Highway comments indicate that a mature Poplar at the entrance to Halloughton village will need to be removed, the applicant should confirm whether this tree needs to be removed or not.
- Landscape impact - The EMD Team do not agree with the assessment that there is a minor beneficial change in landcover throughout the site. This assessment has focussed on the biodiversity aspects of the change and not on the perception of the change in the landscape. The applicant should review and revise this assessment to encompass perceived change as part of the overall evaluation and provide an updated revision on this issue.
- Landscape impact - There will be a change in the perception of the landscape character of the village of Halloughton at the construction stage due to the presence of the access road emerging on to Bridle Farm Lane, the main route into the village, caused primarily by visual presence of construction vehicles, and the potential loss of the large poplar at the village entrance. This effect has not been assessed and needs to be considered by the applicant.
- Landscape mitigation - In addition to the landscape proposals drawing and description in the Biodiversity Management Plan, a summary of the enhancement measures should be provided in the LVIA document. This is in order that the focus of the description is based on the mitigation of landscape and visual effects rather than purely biodiversity aims.
- Visual assessment - It is recommended that a set of viewpoint photographs is also included in the LVIA that shows the representative views and 3 additional heritage viewpoints when the vegetation is not in leaf.
- Visual assessment - No visual assessment has been made of the construction stage of the project. The construction stage is predicted to be 14 -16 weeks. The applicant should provide an assessment of impacts during this stage of the development including additional information about the visual impact of the structures which connect with the existing pylons in this section of the LVIA.
- Visual assessment - The visual impact at the construction stage of vehicles bringing the components of the solar farm to the site should be assessed.
- Visual assessment - The applicant should confirm if alternative routes for access to the site have already been ruled out, and if so for what reasons.
- Visual assessment – In year 1 of the development, a major scale of visual effects is recorded for viewpoints 1, 2, 4, 14 and 15 located on existing PRowS, the EMD Team are in agreement with this assessment. These impacts are significant in terms of the EIA regulations.

- Visual assessment – Heritage viewpoint B - The EMD Team is in agreement with the conclusions of the visual assessment for year 1 of the proposed scheme for the 18 representative viewpoints, and heritage viewpoints A and C. However, we are not in agreement with the assessment from Heritage viewpoint B from PRoW footpath 209/12/1, looking southwest (Southwell Footpath 11 on the Southwell Heritage trail 2), this point is located on the high ground to the south of Southwell and to the east of the site and there is a distant view of the southern half of the site. We consider the scale of effect for Heritage viewpoint B should be minor adverse for year 1 only.
- Visual assessment - For Year 10 of the visual assessment for some viewpoints, the change in scale of effect from year 1 to year 10 is large, for example for viewpoint 1 the scale of effect at year 1 is Major and this declines to negligible by year 10. This large scale of change relies totally on the successful establishment of the proposed hedgerows and the effective management of the existing hedgerows. The applicant should reconsider the year 10 impacts and confirm that this degree of change is accurate.
- Visual assessment - A description of the visual effects on surrounding residential properties should be included in the LVIA, particularly on properties on the north western edge of Halloughton, this information should be added either as a Schedule of Effects or as a written description in the LVIA.
- Visual assessment - The extent of views from the isolated farms within the study area should also be recorded, even if the views are screened by surrounding mature vegetation.
- Cumulative effects – the applicant should confirm that there are no cumulative effects with other proposed solar farm projects within the study area, that are registered with the planning authority.

The following information should be provided as a condition of the application should this be approved at a later stage:-

- A detailed landscape proposal drawing with full planting schedules, showing species, specification and density of plant material should be provided.
- Tree protection measures shown in the Arboricultural Impact assessment (Arboricultural Impact Assessment – Barton Hyett Associates – Revision A 26th June 2020) should be conditioned and as detailed in the tree consultants' comments (Tree consultant – Graham Wilson to HW - North Kesteven District Council – 27th July 2020)
- The colour of the various cabins has not been detailed at this stage; this information should be provided as a condition of the application. As the cabins are likely to be viewed against the landscape rather than the skyline, we would suggest that a green or grey brown colour would be the least intrusive.

11 Conclusion

The applicant's submitted information currently has some omissions or is lacking clarity in certain areas identified within this report. Before any final conclusion can be made the applicant should provide the additional information requested and clarify the issues outlined above. Once this information is provided, the EMD Team can then determine if they recommend support for the proposed scheme or not.

Yours sincerely

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