

APPENDIX A – Report to Southern Area Planning Committee on 27 April 2021

APPLICATION NO.	20/00814/FULLS
APPLICATION TYPE	FULL APPLICATION - SOUTH
REGISTERED	14.04.2020
APPLICANT	Mr Hugh Brennan, Woodington Solar Limited
SITE	Woodington Solar Farm, Woodington Farm, Woodington Road, East Wellow, SO51 6DQ, WELLOW
PROPOSAL	Installation of substation, ground mounted solar panels, ancillary equipment, infrastructure and access associated with Planning Permission reference: 15/02591/FULLS.
AMENDMENTS	<u>Received 31st March 2021</u> LFA Acoustics letter <u>Received 23rd December 2020</u> Covering letter Drawing H.0357_06-P, 'Site Layout Plan', prepared by Pegasus Group, dated 22nd December 2020 (to replace Rev O, dated 11th March 2020); Drawing H.0357_45 Sheet No: _ Rev: C, 'Site Block Plan', prepared by Pegasus Group, dated 22nd December 2020 (to replace Rev B, dated 17th March 2020) Drawing H.0357_54 Sheet No: _ Rev: _, 'Substation Overview Plan', prepared by Pegasus Group, dated 22nd December 2020 (new detail). <u>Received 11th November 2020</u> Spreadsheet setting out responses to EHO concerns Email regarding transformer operation <u>Received 18th and 24th September 2020</u> Avian Ecology response to ecologist comments Outdoor lighting Assessment Plans confirming location of outdoor lighting <u>Received 6th July 2020</u> EMF Assessment <u>Received 16th June 2020</u> Covering letter Heritage Setting Assessment Detailed landscape proposal drawing Landscape rebuttal Landscape Management Plan Design and Access Statement Noise assessment

Screened Zone of Theoretical Visibility and Viewpoint
Location Plan

CASE OFFICER

Miss Sarah Barter

Background paper (Local Government Act 1972 Section 100D)

1.0 INTRODUCTION

- 1.1 The application is presented to Southern Area Planning Committee at the request of a Local Ward Member.

2.0 SITE LOCATION AND DESCRIPTION

- 2.1 The Application Site covers a total area of 6.78 hectares. The site is located in the centre of a previously permitted Solar Farm site, of approximately 72.01 hectares, at Woodington Farm. The DNO Substation is located to the south of Smidmore Copse and includes access off Woodington Road through Woodington Farm.

3.0 PROPOSAL

- 3.1 The proposals are associated with a previous application for a Solar Farm at the site which was granted Planning Permission by Test Valley Borough Council (reference: 15/02591/FULLS) on 4th July 2017. Condition applications have both been made and approved at the time of report writing in respect of the original Planning Permission. An NMA application has also been approved in respect of the 2015 application. This related to changes to the scheme associated with changes to the inverters proposed to be used as part of the development. The main change made was the type of inverter used: from thermovolt: AG inverters to Sunny Central inverters. There were also consequential changes to the housing for the inverters, transformers and switchgear.

Development of 15/02591/FULLS commenced on Monday 15th June 2020 with construction works taking place from the Tuesday (16th June 2020), the implementation of the development had been substantially completed by 22nd June 2020.

- 3.2 The proposal is for *Installation of substation, ground mounted solar panels, ancillary equipment, infrastructure and access associated with Planning Permission reference: 15/02591/FULLS.*

- 3.3 In broad terms the application is for:

- Site levelling to accommodate DNO Substation footprint in the centre of the site;
- Installation of the required equipment and infrastructure necessary to form the DNO Substation and facilitate the connection to the 132kV overhead line, including compound enclosure fencing;
- Additional Solar PV Panels, of the same design as those previously approved, located to the east of the proposed substation and south of Smidmore Copse.

- 3.4 The solar PV panels would be of the same specification as those previously approved and are to be installed at an angle of 20 degrees from horizontal and fixed on a ground mounted metal framework which is driven directly into the soil. Drawing numbers 13 xxx 05.2 02 and 13 xxx 05.1 02 details the 12 x 4 and 6 x 4 panel arrangements.
- 3.5 The erection of a single inverter/transformer station is proposed (to replace one included within the original Planning Permission). The cabinet would measure approx 2.8m in height.
- 3.6 The erection of metal palisade fencing around the DNO Substation to 2.5m in height is also proposed together with access routes within the Solar Farm site to provide a track to the DNO Substation (which crosses the PRow 5a) (The footpath itself is not altered).
- 3.7 In respect of the substation area ground levelling is proposed across the footprint of the DNO Substation together with the installation of the required equipment and infrastructure necessary to form the DNO Substation and the connection to the 132kV overhead line include a Gantry (connecting to the replacement overhead line pylon/tower), Circuit Breakers, Insulators, 132kV/33kV Transformers, above ground connections and associated infrastructure within the compound. The maximum height of the equipment (on the levelled ground) is 6.8m with a Gantry of 10m to connect with the overhead line. There is also an associated building forming a new SSEN Control Building measuring and CLIENT/ SWG Control Building, each measuring: 4.7m (L) x 5.6m (W) x 3.2m (H).
- 3.8 This application continues to provide the existing footpath routes through the site and the proposed bridleway routes secured previously.
- 3.9 The application sets out that the development will have an installed electricity generating capacity of up to 40MW. The DNO Substation is necessary to export renewable energy generated and will need to fulfil the technical and operational requirements of the DNO Scottish and Southern Energy (SSE) Power Distribution in connecting to the 132kV local electricity network. This is the minimal level of development necessary to ensure that the site performs effectively with regards to its main purpose of generating renewable energy.
- 4.0 **HISTORY**
- 4.1 20/00359/SCRS - Screening opinion under the Environment Impact Assessment Regulations 2017 - Installation of substation, ground mounted solar panels, ancillary equipment, infrastructure and access – Under consideration
- 4.2 15/02591/NMA1 - Amend inverter design - Amendment to planning permission numbered 15/02591/FULLS – Approval 30.11.2020
- 4.3 15/02591/FULLS - Installation of a ground mounted solar park to include ancillary equipment, inverters, substation, perimeter fencing, cctv cameras, access tracks and associated landscaping – Permission subject to conditions – 04.07.2017

The following condition information has been approved on this application:

- Condition 5 - Construction environmental management plan
- Condition 6 - Biodiversity management plan
- Condition 11 - Programme of archaeological work
- Condition 12 - Construction management plan
- Condition 13 - Soft landscaping
- Condition 14 - Schedule of landscape maintenance
- Condition 15 - Details of siting, external materials, external lighting, and means of access/enclosure for the sub-station
- Condition 16 - Scheme of noise mitigation measures
- Condition 17 - Details of bridleway network
- Condition 19 - Surface water drainage strategy

A Judicial Review Challenge was lodged in respect of the discharge of conditions. The challenge was unsuccessful, permission to proceed to a full hearing having been refused at a renewal hearing on the 13th January 2021.

4.4 12/02770/SCRS – Screening Opinion under Regulation 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 for a solar park on land at Woodington Farm – response issued, March 2013 – EIA not required.

4.5 11/02034/FULLS - Roof mounted solar array on two existing agricultural buildings – permitted, Nov 2011.

5.0 **CONSULTATIONS**

5.1 Landscape – No Objection subject to condition (following receipt of additional information)

Additional information has been submitted which includes a Landscape Rebuttal, Landscape Management Plan, Design and Access Statement and a ZTV.

A ZTV has been submitted which demonstrates that due to the typography of the landscape, the additional infrastructure required for the proposals would result in a very limited additional visibility across the wider landscape. Taking into consideration the mature vegetation and woodland surrounding the site which is not reflected within the ZTV, I am confident that the additional proposals would have a minor impact on the wider landscape character. It is acknowledged that there will be closer public views of the substation which would further add to an industrial form within this rural area; however these views would be appreciated in context with that of the substantial solar farm surrounding it, which already has permission.

Management plan has been submitted, this provides a good understanding as to how the site will be maintained and managed. However a condition is required for planting plan – details to include species, sizes, no's. and locations. For hedgerows will also need percentage mix and planting densities.

Condition required for colour of the palisade fencing – details to be agreed.

5.2 Environmental Protection – No Objection (following receipt of further information)

Noise impacts

The noise consultants has now addressed my concerns. For the avoidance of doubt it has been explained that the substation will sit lower in the landscape and therefore there is an element of natural barrier. In response to my specific queries reassurance has been given.

EMF

The report provided with regard to electromagnetic fields which would be generated by the site raises no concerns having addressed worst case scenarios and considered the new equipment in conjunction with the Existing overhead cables.

Third party representation including a noise assessment

I consider that the points raised by LF Acoustics regarding the third party representation including a noise assessment are reasonable. In particular:

- I do not consider that the monitoring period can be considered as representative because of the impact of the Covid restrictions;
- And I consider that allowing the full 6dB for tonality cannot be justified given the information available.

As such given that the conclusions of the Hayes McKenzie report are based on a background level which I would question, and the assumptions made do not appear to reflect all of the available information, then I do not consider that we have justification to question the noise information provided in support of the application.

I would further point out that a precautionary approach has been taken by ourselves and LF Acoustics (for the applicants) in recognition of the low background noise levels in the area. This is evidenced by the information contained within the summary to LF Acoustics 2nd Addendum Noise Report dated June 2020.

5.3 Trees – No Objection subject to conditions

5.4 Esso Petroleum – Confirm do not have apparatus near the proposed works

5.5 New Forest National Park – Objection

The site for the DNO Substation is less than 3 km distant from the New Forest National Park boundary. The New Forest National Park Landscape Character Assessment illustrates that the closest Landscape Character Area to the development is LCA 10, West Wellow Heaths and Commons. This LCA has key positive landscape attributes of unenclosed common heathland and also of a pastoral landscape of Parliamentary fields on the outer edges of the area.

Views from West Wellow and Plaitford Commons extend over land outside the National Park boundary on the north east side of the A36 on which the boundary sits. This view from within the National Park could be detrimentally affected by the proposals, especially considering that the topography of the development site rises.

It is considered that the setting of the New Forest National Park could be harmed by the proposed DNO Substation with the industrial nature of the construction being out of context with the pastoral landscape that forms a historic connection with the landscape character of the New Forest National Park.

5.6 Natural England – No Objection

5.7 Conservation – No Objection

Permission for a solar farm in the current location was granted under application 15/02591/FULLS (see previous comments). This application relates to a small section of the area considered under that application and is for various amendments, including additional solar panels and a substation.

An amended heritage appraisal has now been provided.

An additional site visit has been undertaken by Design and Conservation to consider the current proposals

It is considered that the area subject to the application in question is sufficiently screened by the landscape, topography and vegetation so as to not be visually prominent in the settings of any of the nearby heritage assets. Any glimpsed views would be exceptionally limited and would be incidental and therefore would not adversely affect the significance of the assets in this instance.

It is recommended the palette of materials for the equipment be kept as recessive as possible, but it is considered this could be conditioned.

5.8 Ecology – No Objection subject to condition (following receipt of further information)

Given the additional measures presented, minimal infrastructure within the 15m buffer zone and infrequent use of the track, I would raise no further concern over the proposals.

5.9 Ramblers – No Comment

5.10 Highways – No Objection subject to condition

5.11 Scottish and Southern Electric – No Comment

6.0 **REPRESENTATIONS** Expired 15.05.2020

6.1 Wellow PC – No Comment (following receipt of the amended details – 20th October 2020)

6.2 3 x emails of support

- I support this application as it will support the vital national move from fossil fuels towards more sustainable energy generation.
- Having studied the application I think that the substation is sufficiently distant from any dwellings not to cause a noise nuisance.
- I do not think such a passive development constitutes the sort of harmful industrial development mentioned by many objectors. Indeed it will be a relatively short term land use with sheep grazing beneath the panels and the land can readily revert to other agricultural use in the long term if necessary.
- Based on the traffic generation in the application the level of traffic accessing the site will be negligible once the solar farm has been installed.
- The application makes provision for dedicated wildlife areas and visual screening. The creation of new public footpaths and bridleway will be of significant benefit to local residents who walk and cycle.
- I wholeheartedly support this application which looks to have been very carefully thought out to minimise visual and noise impact. The precedent for installing solar farms has already been set, there being others in this area. We absolutely should be doing everything we can to promote the use of green energy.
- This proposed solar facility is discreetly placed and an important addition to the national need for non carbon electricity generation.

6.3 300 + objections received including comments on further notifications carried out on 13th July 2020, 7th October 2020, 3rd February 2021, 17th February 2021 – Objection

Noise

- The Local Plan (Policy LHW4) recognises that residential amenity can potentially be affected by a number of factors such as noise. This includes changes of use that intensifies outdoor use. As such the impact on the amenity of neighbouring residents and uses must be taken into account.
- The NPPF states that decisions should ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health and living conditions and the natural environment. This includes avoiding schemes that produce noise that would have an adverse impact and to particularly protect “*tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason*”.
- The original Permission relied upon a noise assessment being provided pursuant to a planning condition. This is in the process of being reviewed. However, imposing a similar condition to any grant of the existing permission would be unsatisfactory given that not only is the impact of the proposed development unknown but so too is the cumulative effect. Without advance assessment of the impact of noise no decision can safely be taken that mitigation measures will be adequate.

- There is no doubt that the new DNO complex will produce additional noise as the original Permission was for less substation infrastructure as specified in condition 2, drawing DIS000. It is accordingly essential that a noise assessment is submitted prior to grant of permission
- Noise Assessment carried out by Hayes Mckenzie. Uncertainty in the outcome of the assessment is associated with the uncertainty of the background sound levels, the uncertainty of the calculation of the specific sound level, and the uncertainty of any characteristic penalties included in the rating level.
- The uncertainty associated with the measured background sound levels is estimated to be about ± 2 dB. Excluding data when the properties are downwind of the motorway has led to a difference in background sound levels of 4 – 8 dB between the two consultancies as discussed at 5.8.
- The specific sound levels are likely to be lower than predicted due to the conservative nature of the worst-case predictions. The plant has been modelled as operating at maximum load during early morning, daytime and evening times. This may be possible during the summer, but in winter the load will be almost zero during early morning and evening periods, this implies significant conservatism in the assessment for winter.
- The maximum tonal penalty of 6 dB has been assumed and no other characteristic penalties are applicable. The tonal penalty is deliberately conservative since third octave or narrowband data was not available to properly analyse the tonal character according to BS 4142. To summarise, all the uncertainties in the assessment are likely to contribute towards an over-estimate of the impact.
- A 6-day survey of background sound levels at 2 properties near to the development has been carried out. The results of the survey have been analysed to determine typical levels at each location during 3 distinct time periods of early morning, daytime and evening.
- Operational noise levels of the solar farm plant were taken from manufacturers documents and spectra were taken from LFAcoustics report. It is thought that the SMA Solar Inverters sound power level data which LFAcoustics have used in their assessment is 12.7 dB too low leading to a significant underestimate of the sound pressure level received at the surrounding properties.
- Significant adverse impact has been predicted at Little Woodington according to BS 4142 while adverse impact has been predicted at Lower Woodington for critical wind directions where the margin between background sound level and rating level is up to 11 dB. Potential impact is expected at other properties in the surrounding area too, with Glebe Cottage and Bushymoor Copse of particular concern.
- Mitigation has already been applied to the development, but it is suggested that further mitigation would be required to avoid adverse impact, which Hayes McKenzie believes is the intention behind Condition 16.

6.4 Radiation

- The position with regards radiation and non-ionizing EMFs is a highly sensitive subject and should not be disregarded simply because there are currently no specific guidelines. International studies have shown that children living within 50 metres of power lines have an increased risk of developing acute leukaemia and the risk is generally acknowledged as even higher if there is a pylon. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) have very specific guidelines to limit exposure to electromagnetic fields for the protection of humans exposed to radiofrequency electromagnetic fields (RF) in the range 100 kHz to 300 GHz. Power lines and substations are generally lower frequency but it will be necessary to know the precise emission of EMFs likely to be generated in order to properly assess risk.

6.5 Fire

- The Government issued a Report in 2019 (Fire and Solar PV Systems, Investigations and Evidence) following at least 80 fires associated with solar farms (including fatalities) and there appears to be a recognised risk where there are DC connectors, substations and inverters on site. This is primarily due to poor installation and detailed information is required in order to ensure that the proposed locations for the DNO complex, which itself adds to the overall fire risk, are the safest in the event a fire were to break out. Details are required as to whether it is safe to have the proposed 132Kv DNO grid connection on site so the safety issues can be given proper consideration.

6.6 Visual intrusiveness

- We observe that the site will be visible from the northern end of Wellow FP5. At present (Spring 2020) there are very pleasant and extensive views from this footpath to the south west over undulating pasture and woodland and further to high ground within the New Forest national Park (NFNP). While we accept that these attractive views are somewhat compromised by the solar park, the large compound containing the substation will be an additional jarring item in the landscape and noticeable just because it is different to the solar arrays around it. We note that the substation is roughly 100m x 100m in extent and will contain an assemblage of cabinets, buildings, cables and masts. While screening hedges could be planted to hide the view of the substation from FP5 such plantings would also block the attractive views mentioned above.
- We believe that the proposal would negatively impact on the special views out of the National Park and also on its tranquillity which is generally accepted to include visual as well as aural disturbance such as the intrusiveness of a large man made structure within a largely rural setting.

- St Margarets church, a grade 1 listed building containing the tomb of Florence Nightingale lies south west of the site. Whilst it is unlikely that the substation will be visible from the churchyard itself it seems probable that it will be visible from the small lanes leading to the church, especially during the months when the trees and hedges are not in leaf and thus will detract from the visitor experience.

6.7 Biodiversity

- The Local Plan (Policy E5: Biodiversity Development in the Borough) encourages development that will conserve, and where possible restore and / or enhance, biodiversity. Development that is likely to result in a significant effect, either alone or in combination, on an international or European nature conservation designation, or a site proposed for such designation, will need to satisfy the requirements of the Habitat Regulations.
- Sites designated for international or European importance receive the highest level of protection for their ecological value and include Special Areas of Conservation (“SACs”). The sites of international or European importance within Test Valley include the Mottisfont Bats SAC.
- The NPPF (para 176) also states that SACs should be given the same protection as habitats sites. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.
- The Mottisfont Bats Special Area of Conservation (SAC) was designated in 2003 in accordance with the EU Habitats and Species Directive. It was designated to ensure the conservation of a rare Barbastelle bats population. This SAC is designated for Barbastelle bats which are protected species and it is an offence to intentionally harm or recklessly disturb bats or to damage their habitats.
- The boundary of the SAC was defined to ensure the protection of the known breeding sites used by the bats. Attached is The Mottisfont Bats SAC Protocol for Planning Officers (June 2010) (“the Protocol). On page 8 of the Protocol is a map showing the location of the SAC and identifies a circle around the site of 7.5km which is the recommended buffer zone based on the distances that bats fly to forage during the breeding season. Woodington Farm falls within this buffer zone. Any development that is proposed within the buffer zone should identify the impact upon habitats used by Barbastelle bats within the Mottisfont Bats SAC (Para 2.1).
- Barbastelle bats are sensitive to disturbance so developments within the buffer zone that produce noise may affect the use of the habitat by the bats. The proposed development is for a DNO complex and new gantry and the noise and radiation will be substantially louder than the scheme approved in the original Permission. Paragraph 3.3 of the Protocol states that “proper assessment” of impact is required not only to satisfy the requirements to protect the SAC but also the species protection arising from the Habitats Regulations. No such assessment

has been carried out as the Supplementary Ecology Report submitted with the new application (Ref: 20/00814/FULLS) only examines the impact the development will have on food and does not address the impact of noise and radiation on the bat population, other fauna, and the likelihood is a net degradation of biodiversity.

6.8 Agricultural Land

- National and local policies aim to protect the best and most versatile (BMV) agricultural land and soils from significant, inappropriate or unsustainable development proposals. Woodington Solar Farm was identified as having a mixed soil composition some being BMV. A planning condition was imposed requiring the operational period to be limited to 25 years as well as a requirement to allow sheep grazing for the interim period. At the end of the 25 years all structures and equipment would be removed.
- The EIA screening request for this application relies on the 2015 Land Classification Survey that identifies the soil quality within the smaller Site as being either Grade 3b or Grade 4. The applicant states that if a similar condition were to be imposed for temporary use then there would be no significant impact on the proposed use of the land.
- However, the proposed Development requires significantly more electricity infrastructure than the original permitted scheme and it is not enough to simply assume that the land can be restored without permanent harm. Details should be provided as to how the Site will be decommissioned to ensure that agricultural use may be resumed without compromise to long term sustainability. It is not sufficient in this instance to rely upon a planning condition following grant of permission as was the case with the original Permission.

6.9 Traffic

- Local Policy T1 states that development should only be permitted provided that:
- *“a) its location is connected with existing and proposed pedestrian, cycle and public transport links to key destinations and networks; and b) measures are in place to minimise its impact on the highway and rights of way network and pedestrian, cycle or public transport users; and c) the internal layout, access and highway network is safe, attractive, in character, functional and accessible for all users and does not discourage existing and proposed users; and d) it does not have an adverse impact on the function, safety and character of and accessibility to the local or strategic highway network or rights of way network; and e) provision is made to support and promote the use of sustainable transport, including the submission of a site travel plan where appropriate.”*

Development must also provide safe access for all users of the highway where new accesses or additional use of existing unsatisfactory access(es) or minor roads are required.

- No information has been provided on the traffic levels required for ongoing maintenance of the new DNO complex and the potential impact upon the existing PROWs and the ongoing operational farm roads. There is no information on the spare capacity that will be available with further traffic movements for new connections.
- The proposed maintenance track emerges on a blind corner in Hackleys Lane, the location of many collisions over the years. It would also create an unsustainable increase in traffic in the lane which is already overloaded.

6.10 DCO Process

- The original Permission sought consent for the installation of a solar farm which would have electricity generating capacity of approximately 40MW, with an operational period of 25 years. The new application makes provision for additional solar panels but no details are provided as to the precise number of additional panels and how much additional electricity will be generated. This information, along with confirmation of the resultant total number of panels is required to ensure that cumulatively the solar farm does not exceed 50 MW which is the threshold for renewable energy developments under the Development Consent Order process.

6.11 Proximity to the Listed building

- At this difficult time Florence Nightingale is very much people's mind. St.Margaret's Church is and should remain a place for people to come for peace and quiet. Some having lost loved ones due to the virus, some to give thanks for having survived. With hospitals all over the carrying her name it will be sacrilege to spoil this for the people who wish to honour her name. If we have a substation close to the church the noise and emissions will not be conducive to quiet reflection. Please consider the impact that this will have on the area and remember that we are fortunate to have Florence Nightingale legacy still after 200 years.

6.12 Screening Opinion

- An EIA screening opinion (Ref 20/00359/SCRS) has been requested by the applicant pursuant to under the *Town and Country Planning (Environmental Impact Assessment) Regulations 2017* ("the EIA Regulations"). We wrote separately to the Council on 1 May 2020 with points of concern to be taken into consideration for that screening. We would take this opportunity to remind the Council that no decision can be issued pursuant to this application until an opinion has been reached under the tests set out within the EIA Regulations as to whether the proposed development is an EIA development or not.

6.13 Procedural Error

- Following grant of the Permission, the applicant found that the DNO substation incorporated into the design of the permitted development would not be able to become operational as the drawings had been based on connection with 33Kv overhead lines. Consequently, a S73

application (Ref 19/00401/VARS) ("the VARS") was submitted to revise the permitted scheme to include a DNO substation that would connect with overhead powerlines for 132Kv. The substation infrastructure for this conversion is significantly larger with more extensive impact. The VARS was granted consent but following a JR challenge by our client the Council agreed to have this quashed.

- Instead of submitting a new S73 application, the applicant has chosen to submit a full stand-alone application for the 132Kv DNO complex.
- This cannot be granted consent if there is no solar farm for it to connect with. The development permitted by the original Permission remains conditional upon details being submitted for a DNO that connects to a 33Kv grid. No details can be submitted and approved for a 33kV grid since the grid needs a 132Kv connection. Our letter of 6 February 2020 detailed the legal position in respect of the problem discharging Condition 15 of the Permission.
- Accordingly, the applicant should have submitted either a revised new full application for the whole solar farm with a 132Kv DNO or a new S73 application.

6.14 Pipelines

- Regarding the two underground pipelines that pass through the application site. This vital information has been omitted from this application and other applications that proceed it. Will you request further information from the applicant to show the position of the pipelines in relation to the proposed development?
- Does the proposed development comply with the guidance in the UKOPA publication entitled "Requirements for the Sitting and Installation of Solar Photovoltaic (PV) Installations in the Vicinity of Buried Pipelines?"
- Does the proposed development comply with "Pipeline Safety Regulations 1996" and the "Construction Design Management Regulations"/Land Registry document HP 719572 states that the three Deeds associated with the underground pipelines;-
Dated 30 April 1985 made between (1) Peter James Pilbrow and (2) Esso Petroleum Company Limited
Dated 27 August 2009 made between (1) Peter James Pilbrow and (2) Marchwood Power Limited.
3, Dated 27 August 2009 made between (1) Woodington Farms Limited and (2) Marchwood Power Limited
- What are the easements that these Deeds refer to?

6.15 Other matters

- I would like to see my comments from my previous email uploaded to the comment section imminently. Through conversations with other neighbours, you have failed to upload many of their comments and concerns too.
- Please look at my previous email and upload my concerns and objections, and those of others as what appears to be happening here is an obstruction of due procedure.

7.0 **POLICY**

7.1 Government Guidance and Legislation

- Climate Change Act 2008,
- National Planning Policy Framework (NPPF),
- National Planning Practice Guidance (NPPG),
- National Policy Statement for Energy Infrastructure (NPS),
- Speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP to the solar PV industry, April 2013
- Written Ministerial Statement on solar energy protecting the local and global environment, 25th March 2015.

7.2 Test Valley Borough Revised Local Plan (2016)(RLP)

SD1 – Presumption in favour of Sustainable Development

COM2 – Settlement Hierarchy

E1 – High Quality Development in the Borough

E2 – Protect, Conserve and Enhance the Landscape Character of the Borough

E5 – Biodiversity

E7 – Water Management

E8 – Pollution

E9 - Heritage

LHW4 – Amenity

T1 – Managing Movement

T2 – Parking Standards

7.3 Other relevant guidance

- Speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP to the solar PV industry, April 2013
- Written Ministerial Statement on solar energy protecting the local and global environment, 25th March 2015.
- Wellow Village Design Statement

8.0 **PLANNING CONSIDERATIONS**

8.1 The main planning considerations are:

- Principle of development
- Site selection and agricultural land
- Landscape and visual impacts
- Tree impacts
- Heritage
- Impact on residential properties
- Noise
- Ecology
- Highways
- Health and Safety
- Other matters

8.2 Principle of development

Planning applications should be determined in accordance with the development plan unless material considerations indicate otherwise. The Test Valley Borough Revised Local Plan (TVBRLP) was adopted in January 2016. There are no specific policies within the plan relating to renewable energy.

Policy SD1 of the TVBRLP has a presumption on favour of sustainable development. It states that where there is no policies relevant to the application the Council will grant planning permission unless material considerations indicate otherwise – taking into account whether;

- a) Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies of the NPPF taken as a whole or;
- b) Specific policies within that Framework indicate that development should be restricted.

8.3 The site is located within the countryside as defined by Policy COM2 of the TVBRLP where development is allowed if it is appropriate within the countryside as set out in relevant policies or it is essential for it to be located within the countryside. The relevant policies set out in policy COM2 do not cover the creation of solar farms. Consideration therefore needs to be given to whether it is essential for it to be located in the countryside.

8.4 The National Policy Statement for Energy (EN-1) sets out how the Government is going to reduce its carbon emissions by 2050 as at present the UK is heavily reliant on fossil fuels, which has an impact on global climate. To keep rising global temperatures to below 2 degrees there needs to be a move away from the use of fossil fuels. As part of its strategy the Government has set out its need for new low carbon energy infrastructure to contribute to climate change mitigation.

8.5 The National Planning Framework 2019 states in paragraph 154 that when determining planning applications for renewable and low carbon development local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution and that the application should be approved if its impacts are or can be made acceptable.

8.6 The applicant has worked with technical partners and various specialists including Ethical Power Connections Ltd and the DNO Scottish and Southern Energy (SSE) Power Distribution, to finalise the construction detail of the Solar Farm and the means by which the renewable energy generated will be exported to the local electricity network. It is proposed the renewable energy generated by the Solar Farm will connect to the 132kV overhead line which crosses the Woodington site. Given the principle of siting a solar farm in this location have previously been established by the original grant of planning permission which has already been implemented, and the current proposals

ensure the site can function, it is considered that it is essential for these proposals to be located within the countryside and as such the development is considered to accord with Policy COM2 of the RLP.

8.7 **Site selection and agricultural land**

The selection of the site and the use of the agricultural land for use as a solar farm has been assessed under the previous application 15/02591/FULLS and this application has since been implemented in June 2020. The Site comprises greenfield land totalling approximately 6.72 hectares. An Agricultural Land Classification report was produced by Soil Environmental Land Services in May 2015. The wider land holding associated with the original application (see Drawing H.0357_01-D 'Site Location Plan' as part of Test Valley Borough Council reference: 15/02591/FULLS) comprised Grade 2 - 16.2% of Site - 17.9% of Panels, Grade 3b - 58.1% of Site - 64% of Panels, Grade 4 - 25.7% of Site - 18.1% of Panels as shown on Drawing: H.0357_31 Sheet No: _ REV: _ 'Agricultural Land Classification'. The Application Site area that forms the subject of this screening request comprises entirely Grade 3b and Grade 4 agricultural land and does not therefore comprise the 'Best and Most Versatile' land. The introduction of the necessary supporting framework and panels themselves will still enable grass to be grown on the Site and the potential for sheep grazing. The development is of a temporary and reversible nature, once decommissioned the site will revert to agricultural use.

8.8 **Landscape and visual impacts**

Policy E2 of the TVBRLP requires development to protect, conserve and enhance the landscape of the Borough. The NPPG on Renewable and Low Carbon Energy recognises that *"The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively"* Concern has been expressed by third parties including the New Forest National Park Authority, and Campaign to Protect Rural England (CPRE) Test Valley District Group. Broadly the concerns are in relation to

- Visual effects upon receptors along Public Footpath FP5 Wellow (CPRE).
- Visual effects upon the approach to St. Margaret's Church (CPRE).
- Visual effects on views out of the National Park (New Forest National Park Authority)

Public footpath 5 Wellow

The scheme had been appraised with landscape and visual effects described in the Landscape Statement (March 2019) and Landscape Technical Note (March 2020) submitted for consideration from the applicant. Third Party comments raised refer to views from Public Footpath FP5 Wellow. This relates to the Public Footpath FP5a, which connects Kitts Merris Farm to the north with Woodington to the south. The third party comments correctly identify that the proposed scheme would be located between two blocks of woodland. Indeed Smidmore Copse is adjacent immediately to the north. The comments state that the scheme would be visible from the northern part of the FP5

purporting that such views would be intrusive and the addition of the Substation would be jarring. The Case Officer and Landscape Officer have reviewed the route and have also noted the line of mature trees which encloses the Substation location and the additional solar panels, to the east. It is therefore considered that views would not be easily gained, if gained at all. This is illustrated in the Landscape Statement (March 2019) with additional annotations on the panorama for Viewpoint 7.

8.9 St Margaret's Church

View point 11 in the Landscape Statement submitted by the applicant provides the view from the eastern end of the churchyard of St. Margaret's Church looking north east. The two pylons visible in the mid distance are located in the southern part of the Site. The Case Officer and Landscape Officer note that the electricity pylon is located within the Site, however, is not visible due to the presence of vegetation in the foreground. It is therefore unlikely that the proposed Substation and additional solar panels would be visible from this particular view and as a result no change to the view and no effects are predicted.

8.10 New Forest National Park

With regards to the comments raised by the New Forest National Park Authority, none of the views identified within the National Park would be visually affected to a discernible degree. This has been confirmed in the information provided by the applicant in the Landscape Statement (March 2019). The 'screened' Zone of Theoretical Visibility (ZTV) (Appendix 1 in the Landscape Rebuttal) provides clear evidence that the majority of the National Park, falling within the study area would not be visually affected. An addendum note to the LVIA of the original Planning Permission (15/02591/FULLS) from the applicant clarified that the identified views within the National Park would not be visually affected to any discernible degree. Furthermore, small patches of theoretical visibility and their inconsistent pattern reveals that this theoretical visibility would be extremely limited and included the consented solar farm. In such context the addition of the modest area of solar panels and the Substation would not cause any additional harm to the landscape character and special qualities of the New Forest National Park.

8.11 The New Forest National Park Authority, however, specifically refers to the setting of the National Park and purports that "...the setting of the New Forest National Park could be harmed by the proposed DNO Substation...". The applicant sets out that the "setting of the National Park" is not another level of designation for landscape beyond the National Park's boundary. It cannot be taken as a blanket restriction on development across an undefined extent of landscape surrounding it. Although the Authority is claiming 'historic connection' between the National Park and the surrounding landscape, the matter of fact is that the site lies outside of this statutory protected landscape. Thus, it does not attract the same level of protection.

8.12 An updated 'screened' ZTV has been prepared for the current scheme

(Appendix 1 to the Landscape rebuttal) and illustrates that the proposals would result in a very limited additional visibility, when seen in isolation. The comparison between the updated ZTV and that from the Appraisal of Landscape and Visual Effects for the consented solar farm (September 2015) reveals that changes to the theoretical visibility are almost imperceptible even within the close to medium range study area (up to 2km radii from the site).

- 8.13 A ZTV has been submitted from the applicant which demonstrates that due to the typography of the landscape, the additional infrastructure required for the proposals would result in a very limited additional visibility across the wider landscape. Taking into consideration the mature vegetation and woodland surrounding the site which is not reflected within the ZTV, the Council Landscape officer advises *“I am confident that the additional proposals would have a minor impact on the wider landscape character. It is acknowledged that there will be closer public views of the substation which would further add to an industrial form within this rural area; however these views would be appreciated in context with that of the substantial solar farm surrounding it, which already has permission.”*
- 8.14 Subject to appropriate conditions securing landscape management proposals it is considered that these proposals can be provided without any significant detrimental impact to the appearance and landscape character of the area in which it will be located. It is therefore considered that the proposed solar farm would accord with policies E1 and E2 of the TVBRLP.
- 8.15 **Tree impacts**
Whilst the proposed development particularly around Smidmore Copse is positioned close to the tree line, the proposal ensures the works are placed clear of tree root protection areas and should be able to be installed without adverse impact on trees. The Tree Officer has no objection to the proposals subject to appropriate conditions ensuring this work is carried out in accordance with the detail submitted. It is considered that the development accords with policy E2 of the TVBRLP which concerns the health and future retention of important landscape features.
- 8.16 **Heritage Impacts**
Comments have been received that in respect of Florence Nightingales grave at St Margaret's Church which should remain a place for people to come for peace and quiet. It has been suggested that the noise and emissions will not be conducive to quiet reflection. Matters of noise and emissions are discussed below at paragraph 8.21.
- 8.17 The Conservation Officer has raised no objection to the proposals. An amended heritage appraisal has now been provided and the Conservation Officer has carried out an additional site visit to consider the current proposals. It is considered that the area subject to the application submitted is sufficiently screened by the landscape, topography and vegetation so as to not be visually prominent in the settings of any of the nearby heritage assets.

Any glimpsed views would be exceptionally limited and would be incidental and therefore would not adversely affect the significance of the assets in this instance.

8.18 The proposed amendments to the scheme would not alter the impact on the setting of any heritage assets. The effect of the proposals on the setting of listed buildings would therefore be limited and would not result in harm to the significance of these heritage assets. It is considered that the development can be provided in accordance with policy E9 of the TVRBLP which concerns Heritage.

8.19 Impact on Residential Amenities

There are a number of residential properties which lie around the perimeter of the application site and given the changing topography, position of the areas of woodland areas around the site, as well as the relatively open nature of the central section of the application site, the proposed solar farm would be visible, to varying degrees from a number of neighbouring properties.

8.20 However, where the additional solar panels and the substation are proposed this is over 400m from the properties to the north at Frenches Lane such as Leahurst and Eldon with a large field in the intervening area. In terms of neighbouring properties to the south there is over 500m between the boundaries with these properties and the proposed location of the current proposals which have changed within this application. The proposed panels and associated infrastructure would be visible in views from neighbouring properties, more noticeably in winter months, but this impact would be in longer views towards the site and given the separation distances involved, the changes in topography and existing and enhanced natural screening secured via the mitigation planting, it is not considered that the change in outlook to neighbouring properties would be so severe as to justify a refusal of planning permission in respect of this matter. It is considered that the development can be provided in respect of visual amenity in accordance with policy LHW4 of the TVRBLP. The impacts of noise on residential amenity are considered below

8.21 Noise issues

The submitted Noise Assessment dated May 2020 states that the principal noise generating element within the 132kV Substation would be associated with the operation of the proposed 40 Mega Volt Amp (MVA) Transformer. The 132kV Substation is 'open air' and not enclosed within a large building, the Substation is enclosed by 2.4m palisade fencing for safety and security (not acoustic) purposes. This transformer would be external (i.e. not enclosed), with no additional noise mitigation measures proposed for this item of equipment or others within the 132kV Substation footprint. The specification for the transformer, including its appearance and noise source data are provided in Appendix B of the noise report. The specification indicates that the transformer would generate low levels of noise (94 dB(A) Sound Power Level (SWL)), which the modelling undertaken indicates would

be a negligible increase in noise levels at the surrounding residential properties compared to the presently approved scheme (Condition 16 'Scheme of Noise Mitigation' under Planning Permission reference: 15/02591/FULLS).

8.22 Officers have undertaken further discussions with the applicants planning agent and noise specialist to further understand the noise implications of these large sections of infrastructure. The main points of discussion were as follows. The comments in italics represent the concerns from Council Officers which the applicant has addressed:

8.23 *Council Officers comment: With regard to ground attenuation it is notable that the figures for this are quite variable between the different faces of the transformer and between the transformer and the inverters. These values also seem to vary between the initial report and the later information*

Applicant's response: This appears to be a quirk in the detailed output files of the SoundPlan modelling. We undertook additional detailed modelling to provide the Council with the detailed modelling output requested. The results presented were for Little Woodington. This property is a considerable distance from the substation (~630 metres). The detailed output from the modelling package provided with the additional information has presented the screening by the intervening ground as ground absorption, rather than a barrier effect, as the substation will sit lower into the ground than at present. It is noted that the tables provided, whilst detailed, still only provide a summary of the number of calculations made for each item of plant (for volume sources, a number of calculations are made for each facade to ensure that the distributed noise is accurately calculated. e.g. there would be more ground attenuation at the base of the transformer compared to that at the top, with calculations also made for each 1/3 octave band). The slight variation is attributable to the fact that the substation and inverters have now been modelled as volume sources to provide a more accurate calculation over the large distances. This is particularly due to the fact that the substation is a large structure and would not simply radiate as a point source. The calculations have been rechecked and the overall results presented are correct.

8.24 *Council Officer Comment: Can the consultant comment with regards to directivity and the transformer and any impact of the solar panels on the Q value*

Applicant response: The calculations have assumed that the noise would radiate equally from all sides of the transformer. Modern transformers are well contained within the overall structure.

8.25 *Council Officer Comment: Treating the transformer in part as a barrier to noise from some of its surfaces seems unusual. If consideration is being given to this element is there not also some reflection from it?*

Applicant response: The transformer is a solid structure and would act as a building with noise radiating from each side. It has been modelled with sound radiating from each side and from the top. This is an appropriate way of modelling what is a relatively large structure. The SoundPlan modelling has taken account of the structure within the calculations.

- 8.26 *Council Officer Comment: Part of the concern regarding the transformer is the height (which would make it difficult to screen) does it need to be at this height for operational reasons*

Applicant response: A standard transformer is proposed to be used on the site and are constructed to these dimensions. As indicated within the planning drawings, the substation will be cut into the land and screened to reduce the overall visual appearance. The substation is very similar to that installed at Evely Solar Farm and other 132kV Substations across the county.

- 8.27 *Council Officer Comment: There is no value included for noise breakout from the base of the transformer, why is this?*

Applicant response: The base of the transformer would sit on the ground and thus no noise would be radiated from this surface. The modelling has assumed that the Sound Power would radiate from the transformer proportionally on each side based upon the main sides and top (i.e. not including the oil tank at the top). Had the base of the transformer been included within the calculations, this would have had the effect of reducing the effective sound power on the sides and thus resulted in lower noise levels than predicted.

- 8.28 *Council Officer Comment: There is no consideration of uncertainty (as per BS4142, section 10) – please can the consultant also comment in this regard*

Applicant response: As specified within the reports, the calculations have been based upon worst case conditions, assuming manufacturers specifications for the plant and equipment and assuming all plant fully operational. Furthermore, the specifications provided by the manufacturers for the equipment are based upon design levels which would not be exceeded. Additionally, whilst the calculations did not indicate any potential for tonality at the surrounding properties, a penalty of 2 dB(A) for a just audible tone was applied to ensure worst case conditions were assessed. The calculations were also made on the basis of a positive wind direction. Taking these factors into account, the uncertainty of the calculations was considered to be low.

- 8.29 The applicant has also provided information on the assessment of noise as a result of the Siemens transformer and comparable noise levels for example of a lawn mower as follows:

In addition to the specification provided by Siemens, which has been used as the basis of the calculations and assessment, LFA have previously

undertaken measurements adjacent to an equivalent Siemens transformer operating with a main electricity substation. Measurements were obtained at a distance of 1 metre at several positions around the body of the transformer, which indicated levels between 54-58 dB(A) at this distance. It was not possible to measure further from the transformer, as noise associated with its operation was not audible above other surrounding sound sources. Utilising the upper level measured, it would equate to an equivalent Sound Power Level of 78 dB(A) SWL, 16dB(A) below the level assumed within the calculations and thus providing further confidence that the calculations provided are worst case and thus further reducing any potential uncertainty.

8.30 *Ethical Power, the 132kV DNO Substation design team, advise that unlike the inverters where the noise profile is variable due to the generating output of the Solar Farm (i.e. the inverter cooling fans have to work harder to cool the inverters during operation on summer days than on winter days which results in increased cooling fan noise) the operation of the transformer is not linked to the generating output of the Solar Farm. The Substation transformer is a consistent noise source which does not vary depending on the generating output of the Solar Farm being part of the electricity network. The noise assessment and modelling undertaken covers this consistent operational noise at 94 dB(A) Sound Power Level (SWL) and concludes no adverse noise impacts and that the proposals are at a level below that would represent the lowest observed adverse effects level when considered against this most stringent night noise guidance.*

8.31 *A Sound Power Level of 94 dB, as defined in the specification for the transformer is equivalent to or lower than that associated with a cordless lawnmower, as an example (an EGO lawnmower as an example, generates a SWL of 95 dB). Agricultural machinery operating in the fields would typically generate a Sound Power Level of between 100 - 110 dB. The difference between Sound Power Levels and Sound Pressure Levels should also not be confused.*

8.32 Officers have examined the above information and considered the siting of the substation lower in the landscape through the cut and fill proposed and concluded on the matter of noise as follows:

- The variations in the ground attenuation figures arose after Officers requested more detail because the transformer (the main source of noise under discussion) is too large to radiate sound as a point source and parts of it will effectively be provided a natural barrier by the positioning. The partial barrier effect has been included within the model as ground absorption.
- The solar panels have not been included within the modelling and some small further reduction in noise levels travelling to receivers is likely.
- The panels will be some distance from the sub-station equipment and therefore the crushed aggregate sub-station grounding has been considered.
- The transformer is large enough to behave as a building would in

terms of radiating and reflecting sound and the model has accounted for this.

- The sub-station will be cut into the landscape and screened.
- The transformer is not elevated by will stand on the ground, hence no base calculation.

8.33 A third party representation includes a noise assessment from Hayes McKenzie dated 3rd March 2021 submitted further to the consideration of the above. This assessment sets out that a 6-day survey of background sound levels at 2 properties near to the development has been carried out. The results of the survey have been analysed to determine typical levels at each location during 3 distinct time periods of early morning, daytime and evening. Operational noise levels of the solar farm plant were taken from manufacturers documents and spectra were taken from LFAcoustics report (the applicants report). It is thought that the SMA Solar Inverters sound power level data which LFAcoustics have used in their assessment is 12.7 dB too low, leading to a significant underestimate of the sound pressure level received at the surrounding properties. Significant adverse impact has been predicted at Little Woodington according to BS 4142 while adverse impact has been predicted at Lower Woodington for critical wind directions where the margin between background sound level and rating level is up to 11 dB. Potential impact is expected at other properties in the surrounding area too, with Glebe Cottage and Bushymoor Copse of particular concern. Mitigation has already been applied to the development, but it is suggested that further mitigation would be required to avoid adverse impact, which Hayes McKenzie believes is the intention behind Condition 16.

8.34 The applicant has provided a rebuttal to the noise assessment from LFA Acoustics. The response are detailed as follows:
Assessment of noise levels against correct British Standard
Our assessment was based on the correct revision of the standard, which requires an initial assessment to provide an estimate of the impact, which is then modified by context. In the cases where background noise levels are low (as is the situation at the objectors property) the Standard advises that it is often, if not more important to consider the absolute level of sound when determining impacts, rather than the difference against the background noise level. We adopted the approach of the Standard correctly in this regard.

8.35 *General assessment in the Hayes McKenzie report*
The Hayes McKenzie report, only makes reference to the 2014 version of the LFA report, which has been withdrawn, although there are only minor amendments within the current version. Whilst Para 3.3 of the report makes reference in general terms to the requirement for an assessment on residential amenity, which it is assumed relates to the requirement to assess against absolute noise guidance, no further mention of this requirement is made in this report, with only the initial estimate of the potential impacts reported. The noise levels calculated within the report have therefore not been placed into context and even at the levels predicted in the report would result in noise levels below that which would be considered to represent an adverse impact.

- 8.36 *Conditions under which the Hayes McKenzie Assessment was undertaken*
The noise survey carried out by Hayes McKenzie was undertaken between 11-17 December 2020. The measurements were therefore made during the period of the Covid-19 pandemic. Restrictions were in place during the survey period, with people still being encouraged to work at home. Traffic on the surrounding main road network was lower than under normal conditions, with the DfT surveys indicating car volumes at around 80% at the time of the survey and overall vehicle numbers down over 10%. Background noise levels would therefore be atypical, particularly at peak hours, in the evenings and at weekends. No mention is made within the report commenting upon the likelihood of noise levels potentially being lower than under normal conditions and the lower volumes of traffic on the roads may have been why low levels of road traffic noise was not considered as part of the overall noise climate.
- 8.37 The applicants consultant notes that the principal analysis of background noise levels has only taken account of the levels recorded during dry conditions and when the winds were between 270 to 315 degrees and have not taken account of all wind conditions and thus the analysis of the background sound levels was made over relatively few measurements. This approach is incorrect, and BS 4142 advises that the evaluation should be made over a range of weather conditions. Taking account of winds within this limited direction is atypical of normal conditions in the area, as the prevailing wind direction is from the south west.
- 8.38 *Data and calculations*
Table 4 of the Hayes McKenzie report presents an analysis of the typical background noise levels taking account of all data measured and provides a comparison with those obtained previously by LF Acoustics. Taking account of all relevant conditions during the Hayes McKenzie survey, the comparison indicates generally good consistency between the measurements. With regards the calculations and the assumed Sound Power Level of 83 dB(A) presented within the LF Acoustics Report. The level is correct, although there is a typo within the table, as it should have stated dB(A) LW /m². The calculations made by LF Acoustics were on the basis of modelling volume sources for the equipment. The Sound Power Level stated in the report is therefore correct when specified as a level 83 dB(A) LW /m² and the calculations made on this basis are correct.
- 8.39 The modelling carried out by Hayes McKenzie has adopted a different approach, utilising point sources for the equipment, which did not take account of the orientation of the size of the equipment to be installed, thus resulting in different noise levels. The noise levels calculated by Hayes McKenzie are, however, noted to be very low and had they carried out an assessment of the absolute noise levels, as required as part of the BS 4142

assessment, it would have indicated the potential for a negligible noise impact at the surrounding properties. The noise generated by the operation of

the inverters is high frequency in nature, as could be seen from the source data presented in our report. High frequency sound attenuates more rapidly over distance and the calculations made at the properties indicated no tonality. Furthermore, given that the inverters would be housed in enclosures, the design of the enclosure would be such as to attenuate any tones and this would be subject to testing prior to the operation of the site. Hayes McKenzie made no specific assessment of the tonality, simply stating that they would be clearly tonal and applying the maximum correction of 6 dB(A) within BS 4142. Given that the assessment carried out by LF Acoustics, based upon measured data obtained adjacent to a similar inverter indicated no tonality at the properties, then the correction should not have been applied.

8.40 Taking account of the use of the atypical background noise levels and incorrect application of a correction results in an incorrect assessment within Tables 11 and 12. Whilst not specifically assessed within the LF Acoustics report, noise levels were calculated at the other surrounding properties, with the results presented in the reports. It was not considered necessary to assess the noise levels at these dwellings fully, as the noise levels were lower than at the closest properties considered in full within the reports. Hayes McKenzie have specified that a noise level of around 45 dB LAeq would be predicted in Smidmore Copse, which is of concern to the local residents for the reason of outdoor amenity reasons. However, no assessment of the noise levels has been made. The most relevant criteria to be considered would be that within the World Health Organisation guidance, which advises a level of 50 dB LAeq, 16 hour for outdoor living areas, representing a level of moderate annoyance. The noise levels calculated are 5 dB(A) below this level and thus on this basis, any potential adverse impacts would be negligible.

8.41 The Council Environmental Health Officer (EHO) has reviewed all information provided by both the neighbouring property in the Hayes Mckenzie assessment and the applicant. The EHO states that it is considered that the points raised by LF Acoustics are reasonable. In particular:

- I do not consider that the monitoring period can be considered as representative because of the impact of the Covid restrictions;
- And I consider that allowing the full 6dB for tonality cannot be justified given the information available.

As such given that the conclusions of the Hayes McKenzie report are based on a background level which the EHO would question, and the assumptions made do not appear to reflect all of the available information, the EHO does not consider that the Council has justification to question the noise information provided in support of the application.

The EHO also advises that a precautionary approach has been taken by the Council and LF Acoustics (for the applicants) in recognition of the low background noise levels in the area. This is evidenced by the information contained within the summary to LF Acoustics 2nd Addendum Noise Report dated June 2020.

8.42 The applicants consultants have justified the position taken as regards uncertainty and shown information from another location where performance noise levels were in any case lower than the worst case used here. In light of the above information and subject to a condition ensuring the development is carried out in accordance with the previously approved acoustic information under condition 16 of 15/02591/FULLS, it is considered that the proposed development can be provided without creating an unacceptable adverse impact on human health, the natural environment or general amenity in accordance with policy E8 of the Revised Borough Local Plan 2016.

8.43 **Ecology**

The submission sets out that the proposed substation is located closer to the woodland edge habitats than was proposed in the previous applications. However, the adjacent Smidmore Copse woodland habitat will be protected during construction so that there will be no direct impacts on the woodland habitat and no loss of woodland edge habitat. In addition to direct loss of habitats, other construction related effects include the potential for temporary and localised disturbance of bats foraging and commuting along the woodland edge habitat. Very localised and temporary disturbance would have no measurable effect on connectivity or wider availability of foraging resources. Bats (foraging and commuting) may be affected through the temporary lighting of the construction site and adjoining habitats, if works extend after dark. However, it is expected that works will be undertaken during daylight hours and that temporary lighting will not be required during the construction phase. The recommendation secures at condition 8 no external lighting to be erected on the site during the construction or operational phase of the development, other than that shown on drawing 000625-L-001 Rev F and SO-09167 Sheet 1 of 1 Rev 1 in accordance with the substation compound outdoor lighting studies, dated September 2020. The development itself will maintain an offset between the substation and woodland edge with a buffer provided around the perimeter fence, which remains consistent with the earlier planning applications. In respect of noise impacts on ecology considerations there is likely to be negligible increase in background noise as discussed above in the noise considerations.

8.44 *Foraging bats and EMF*

In terms of effects on foraging bats resulting from the substation, in the absence of any direct habitat loss, construction related disturbance and the maintenance of a buffer between the perimeter fence line and the woodland edge, the submitting information sets out that the only potential impact would be from electromagnetic fields (EMFs), if found to affect bats. A study conducted by RPS Group examined the effects of the construction and operation of high voltage electricity transmission projects on bat activity in Ireland. The study looked to identify potential impacts resulting from

electromagnetic fields (EMFs) and risk of collision and electrocution from literature review. Their review concluded that a correlation has not been identified between low frequency EMF emanating from Overhead Lines

(OHLs) and any negative association with bats. The risk of electrocution is thought to be low as bats should be able to detect structures and lines (which are ubiquitous in the UK landscape). This study also considered 80 separate sites, to assess whether bat activity was present or absent next to existing transmission infrastructure. Their conclusion was that there was no significant association between likelihood of bat occurrence and distance from power lines of any voltage (110kV, 220kV and 400Kv) and that the presence of transmission infrastructure on or adjacent to linear features did not appear to deter bats.

8.45 In the context of Woodington Solar Farm, the development includes a new substation and underground feeder cables which produce EMF. No new overhead line, save for that connecting with the new pylon to be constructed by SSE, is proposed as part of this development but there is an existing 132kV overland line that crosses the site. The EMF assessment of proposals states that the existing overhead line is a more dominant source of EMF than the proposed substation and that most equipment contained within substations produce very localised EMFs which reduce extremely quickly with distance. Hence at the perimeter fence (and adjacent habitats) the levels arising from the substation are low. The EMF produced by Woodington Solar Farm substation, including feeder cable will be below those currently produced by the existing overhead crossing the Site. The above research into bat activity in relation to existing transmission infrastructure found that the presence of suitable commuting and foraging habitats seemed to be the strongest determinant for bat activity around and adjacent to OHLs rather than other factors.

8.46 *Smidmore Copse*

The proposed access to the substation has been adjusted to maximise the distance between the woodland edge at Smidmore Copse and the track. It is understood that small sections of entrance track and the entrance gate to the substation will be within the 15m buffer zone. None of the equipment associated with the substation within the 15m buffer, as outlined within the Additional covering letter submitted by Pegasus Group, dated 23rd December 2020. Furthermore additional planting has been proposed between the track and woodland edge. This currently consists of hedgerow and grassland planting. The species mix for grassland habitats on site is outlined within the Landscape Proposals (Drawing number H.0357_50, Revision A) plan submitted (Pegasus Design, January 2021), which includes shade tolerant species mix for land adjacent to the woodland, and a native wildflower meadow mix for elsewhere on site. This would enhance the biodiversity on site as a result of the proposed development, in accordance with the National Planning Policy and policy E5 of the Revised Test Valley Local Plan DPD.

The species mix for the proposed hedgerow is outlined within the Woodington Farm Planting Schedule Site Layout Plan (Drawing number H.0357_06-P) (Pegasus Environmental, 22.12.2020). Suitable long term management of

these habitats are outlined within the Landscape Maintenance Plan Addendum (Pegasus Environment, June 2020).

- 8.47 It is understood that the access track will be used infrequently, and the Borough Ecologist would therefore agree that a tarmac surface would not be considered necessary in terms of reducing dust pollution given the infrequency with which this track will be used. As outlined within the Additional covering letter submitted by Pegasus Group, dated 23rd December 2020, the use of this access track during the operational phase of the development will be limited to 10-12 light van movements a year. A suitable CMP was secured within a previous application relating to this site, which outlines suitable mitigation measures to mitigate for impacts during the construction phase, during which time vehicle traffic is likely to be more frequent. This has been submitted again for the purposes of this application and is secured in the recommendation at condition 12.
- 8.48 Given the additional measures presented, minimal infrastructure within the 15m buffer zone and infrequent use of the track, the Borough Ecologist would raise no concern over the proposals in relation to the impacts on Smidmore Copse SINC and protected species as a result of EMFs. Subject to appropriate conditions the proposal is considered to comply with policy E5 of the Revised Borough Local Plan 2016.
- 8.49 **Highway impacts**
The application site is accessed off Woodington Road through Woodington Farm. The access proposals remain the same as were described and approved within the original application. A permanent maintenance access is to be taken from Hackleys Lane to the south of the site (as part of the original Planning Permission) and a construction access to be improved off Woodington Road through Woodington Farm utilised for all construction deliveries and the delivery of a single Abnormal Load as part of the DNO Substation.
- 8.50 The construction and operational traffic considerations are set out within the Transport Statement and Construction Traffic Management Plan. This includes details of the necessary temporary improvements required to the access in order to provide suitable visibility splays of the use of this access by HGVs for access and egress off Woodington Road and provides for the installation of temporary trackway/roadways system to be provided to accommodate the single Abnormal Load. This is identified in PFA drawing no H459/07 (included as an appendix within the Transport Statement and Construction Traffic Management Plan).
- 8.51 The construction programme for the Solar Farm and DNO Substation will be approximately 4 months. When combined the Woodington Solar Farm scheme previously permitted the proposal will result in a total of approximately 1,065 HGV deliveries to the site. In isolation this application

comprising the DNO Substation and associated works results in approximately 40 HGV's within this overall site wide total and requires a single Abnormal Indivisible Load. When in full operation, neither the DNO Substation and Solar Farm as a whole would not generate any significant traffic movements, with security and maintenance staff being the only likely regular visitors.

8.52 The Highways Officer has been consulted on the proposal and has no objections to the proposals provided relevant planning conditions requiring the proposed maintenance access to be used for maintenance only once the proposal's construction phase has finished and the site is operational and the return of the existing access to its previous condition and geometry is applied to the recommendation. It is considered the development can be provided in accordance with relevant policies of the Test Valley Revised Borough Local Plan 2016.

8.53 Flooding and Drainage

The application is submitted with an updated supplementary flood risk assessment dated March 2020. With reference to the Environment Agency's Flood Map for Planning (Rivers and Sea), the entire development, including all ancillary control equipment and buildings, will be located to Flood Zone 1. Rainfall falling onto the photovoltaic panels would runoff directly to the ground beneath the panels and infiltrate into the ground at the same rate as it does in the site's existing greenfield state. Existing drainage features will be retained and the site will remain vegetated through construction and operation of the Solar Farm to prevent soil erosion.

8.54 A sustainable drainage strategy, involving the implementation of SuDS in the form of swales, is proposed for managing surface water falling on the site. Swales are proposed at the low points of the application site to intercept extreme flows which may already run offsite. It is emphasised that the swales do not form part of a formal drainage scheme for the development but are provided as a form of 'betterment'. The volume of storage provided within the proposed swales (389 m³) is greater than the additional runoff generated as a result of the extreme 1 in 100 year storm event, including an allowance for climate change (220m³). The purpose of swales is not to act as infiltration features but to act as attenuation features to 'store' the additional volume of the runoff from the 1 in 100 year storm event and the present arrangement remain identical to the already approved scheme. It is considered that the provision of swales would lead to an overall reduction in surface water flow rates from the site and mitigate any increase in run-off due to the minor reduction in the overall permeable area of the site. The swales formed part of the previous proposal.

8.55 The overall conclusions drawn from this supplementary Flood Risk Assessment are that future users of the development would remain appropriately safe throughout the lifetime of the proposed development. On the basis that the drainage arrangements as indicated on drawing H459/02 Rev D are to be implemented and maintained in accordance with the procedures set out at Table D of the FRA and Check Sheet attached as

Appendix 6 of the FRA, the development will not increase flood risk elsewhere and will reduce flood risk overall. The development is considered to comply with policy E7 which concerns water management subject to a conditions ensuring the arrangements set out above are provided.

8.56 **Health and Safety**

Fire Risk

Interested parties have raised concern with regards the fire risk to local residents and people using the neighbouring footpath to this development. The applicant has set out that solar energy generators are required to operate under the same stringent and high standards of safety regulation as all other types of energy generators are required to operate to. As such, Solar Farms are amongst the most highly monitored electrical installations in the country having continuous remote monitoring and built in electrical isolations and safety mechanism to ensure safe operations. Further to this, each site, including Woodington Solar Farm, will have a maintenance team undertaking regular checks, recording and performing maintenance on equipment at the site to ensure it remains safe. Furthermore the Solar PV Panels themselves achieve a number of certifications and safety standards including 'IEC 61215', 'IEC 61730' and achieve conformity to CE standards.

8.57 In light of the written information provided from the applicant Officers agree with the assessment. It is considered that the development can be provided in accordance with paragraph 180 of the NPPF which seeks to ensure decisions on new development is appropriate for its location taking into account the likely effects of pollution on health.

8.58 Electromagnetic fields

Concern has been raised regarding electromagnetic fields due to the increase in power being produced at the substation. It should be noted that the proposed bridleways and existing footpaths do not directly route past the proposed sub station location and that the closest neighbours are over 400m away from this part of the site ensuring no direct public contact with the substation. The applicant has provided an assessment dated July 2020 which sets out that the Government, acting on the advice of authoritative scientific bodies, has put in place appropriate measures to protect the public from EMFs. These measures are set out in a Written Ministerial Statement, National Policy statement EN-5, and two Codes of Practice. The proposed 132kv substation and associated 33kV feeder cabling are fully compliant with the Government policy on EMFs. Specifically, all the fields produced would be significantly below the relevant exposure limits. Therefore, there will be no significant EMF effects resulting from this proposed development and no mitigation is required.

8.59 The predominant source of exposure is the existing overhead line connecting the substation to the local electricity distribution system. The EMFs from the overhead line have been demonstrated as complying with the relevant exposure limits. The EMF produced by Woodington Solar Farm substation,

including the feeder cables will be below those currently produced by the existing overhead line crossing the area. A Statement of Compliance of the proposed substation with Public Exposure Limits for Electric and Magnetic Fields is provided in Appendix A of the submitted assessment. The Environmental protection Officer has reviewed the document and has no concerns over its content.

8.60 **Other matters**

Procedural Error

Comments have been received in respect of the 2019 s.73 permission (Ref: 19/00401/VARS) which was granted consent but following a JR challenge has been quashed.. It has been suggested that the current application cannot be granted consent if there is no solar farm for it to connect with. However Planning Application 15/02591/FULLS is an extant permission which provides the solar farm which the substation proposal will connect to. This remains unaffected by the quashing of the 2019 s.73 permission. It is noted that the information submitted and approved under the previous application condition process for the substation is not adequate for the grid connection, however this does not result in application 15/02591/FULLS being unable to provide the solar panel arrays and associated works which this application seeks to link to.

8.61 Administrative errors

Comments have been received in respect of representations not being uploaded on to the public forum for debate and to be seen by local residents. A large number of comments have been received with this application with a majority of multiple comments using the same format being received on the same day. All comments should now be available to view publically on the planning and building service website

8.62 Generating capacity

A comment was received in respect of the generating capacity of the solar farm. Whilst no total number of solar panels has been provided confirmation has been received from the applicant that the resultant development would not exceed 50MW which is the threshold for renewable energy developments under the Development Consent Order process.

9.0 **CONCLUSION AND PLANNING BALANCE**

9.1 The proposals are considered to be in accordance with the policies within the development plan, as well as the aims of the NPPF and PPG. Material considerations do not indicate that the decision should be otherwise than in accordance with the development plan. Accordingly, it is recommended that planning permission be granted.

10.0 **RECOMMENDATION**

PERMISSION subject to:

- 1. The development hereby permitted shall be begun within three years from the date of this permission.**

Reason: To comply with the provision of Section 91 of the Town and Country Planning Act 1990 as amended by Section 51 of the

Planning and Compulsory Purchase Act 2004.

2. **The development shall not be carried out other than in complete accordance with the approved plans comprising drawings:
H.0357_44 Rev A – Site location plan
H.0357_06-P – Site layout
H.0357_45 Rev C – Block plan
H459/07 – Site access
000625-L-001 Rev F – Overall electric site layout
J00625-C-001 Rev D – Proposed site earthworks cut and fill
J00625-C-002 Rev C – Proposed site earthworks sections
SO-09167 – Sht 1 of 1 Rev 1 – Additional annotation on heavy duty kiosk
000621-L-002 Rev C - Site layout elevation a-a & b-b
000625-L-003 Rev E - Site layout elevations c-c, d-d & ee
H.0357_28 – CCTV Details
H.0357_11-B – Deer Fence details
13_xxx-05.1_02 – Detail framework 6 x 4 block
13_xxx-05.2_02 – Detail framework 12 x 4 block
CE/34/2015 E – Fencing detail
CE/34/2016 E – Gate detail
H.0357_03 Rev F - Screened Zone of Theoretical Visibility and viewpoint Location Plan
H.0357_50 Rev A – landscape proposals
H.0357_52 – Inverter detail
H.0357_54 – Substation overview
Reason: For the avoidance of doubt and in the interests of proper planning.**
3. **The planning permission hereby granted is for a period of 25 years from the date that the development, forming the adjoining Solar Farm (reference: 15/02591/FULLS) was first implemented on 22nd June 2020. This planning permission will expire on the same date. This date being 22nd June 2045.
Reason: In order that the land is returned to its original condition and use following the expiry of the permission in accordance with policies COM2, E1 and E2 of the Test Valley Borough Revised Local Plan (2016).**
4. **The development hereby approved shall be undertaken in full accordance with the provisions set out within the Barton Hyden Associates Arboricultural Impact Assessment Report of March 2019 (updated March 2020) with specific reference to tree protection drawing BHA-531-02 Rev B 20/03/20.**

Reason: To ensure the enhancement of the development by the retention of existing trees and natural features during the construction phase in accordance with Test Valley Borough Revised Local Plan policy E2.

5. **Tree protective measures installed (in accordance with the tree protection condition) shall be maintained and retained for the full duration of works or until such time as agreed in writing with the**

Local Planning Authority. No activities, nor material storage, nor placement of site huts or other equipment what-so-ever shall take place within the barrier.

Reason: To ensure the avoidance of damage to existing trees and natural features during the construction phase in accordance with Test Valley Borough Revised Local Plan policy E2.

- 6. All service routes, drain runs, soakaways or excavations in connection with the same shall remain wholly outside the tree protective fencing without the prior written agreement of the Local Planning Authority Arboricultural Officer.**

Reason: To ensure the avoidance of damage to existing trees and natural features during the construction phase in accordance with Policy E2 of the Test Valley Borough Revised Local Plan (2016).

- 7. The development hereby approved shall be undertaken in full accordance with the provisions set out within the Pegasus Landscape Maintenance Plan addendum dated June 2020, the detailed landscape proposals set out on drawing no H.0357_50 A and the Woodington Farm Planting Schedule, Site Layout Plan (Drawing number H.0357_06-P) (Pegasus Environmental, 22.12.2020). Thereafter, mitigation and enhancement features shall be permanently maintained and retained in accordance with the approved details, with photographic evidence provided to the Local Planning Authority within 6 months of completion.**

Reason: To improve the appearance of the site and enhance the character of the development, and to assist in the development successfully integrating with the landscape, in the interest of visual amenity, whilst ensure the favourable conservation status of protected sites, habitats and species in accordance with policies E1, E2 and E5 of the Test Valley Borough Revised Local Plan 2016.

- 8. There shall be no external lighting erected on the site during the construction or operational phase of the development, other than that shown on drawing 000625-L-001 Rev F and SO-09167 Sheet 1 of 1 Rev 1 in accordance with the substation compound outdoor lighting studies, dated September 2020.**

Reason: In the interests of the countryside location and to avoid impacts to ecological interests on the site in accordance with Policy E5 of the Test Valley Borough Revised Local Plan (2016).

- 9. The drainage arrangements as indicated on drawing H459/02 Rev F shall be implemented and maintained in accordance with the procedures set out at Table D of the PFA Consulting FRA dated March 2020 and Check Sheet attached as Appendix 6 of the FRA.**

Reason: To ensure satisfactory drainage provision on site, in accordance with Policy E7 of the Test Valley Borough Revised Local Plan (2016).

- 10. The temporary access widening as shown on drawing H459/07 shall be returned to its previous condition within 1 month of the completion of construction activities, unless otherwise agreed in**

writing with the Local Planning Authority.

Reason: In the interests of highway safety, in accordance with Policy T1 of the Test Valley Borough Revised Local Plan (2016).

11. Upon first operation of the solar farm the proposed maintenance access shall be used for no other purpose other than the maintenance of the solar farm.

Reason: In the interests of highway safety, in accordance with Policy T1 of the Test Valley Borough Revised Local Plan (2016).

12. The development shall be undertaken in accordance with the Ethical Power Construction Management Plan dated December 2019.

Reason: In the interests of highway safety, in accordance with Policy T1 and E8 of the Test Valley Borough Revised Local Plan (2016).

13. Prior to the decommissioning of the site, a detailed decommissioning strategy addressing biodiversity impacts arising from the decommissioning phase, shall be submitted to and approved in writing by the Local Planning Authority. This shall be supported by any necessary updated ecological survey and assessment work and include measures that would ensure that upon decommissioning, there would be an overall net gain in biodiversity value at the site from the pre-commencement baseline conditions, as defined by the ecological survey work submitted to support the planning application. Decommissioning works shall proceed in accordance with the approved strategy.

Reason: To conserve and enhance biodiversity in accordance with Policy E5 of the Test Valley Borough Local Plan (2016).

14. The palisade fencing and gate hereby approved, as shown on drawings CE/34/2015 E and CE/34/2016 E, are to be painted black (RAL 9005), dark grey (RAL 7016) or dark green (RAL 6005) prior to the development being brought into use in the first export of renewable energy to the electricity grid. Thereafter the fencing shall be maintained in this colour for the duration of the lifetime of the permission specified in Condition 3.

Reason: To improve the appearance of the site and enhance the character of the development, and to assist in the development successfully integrating with the landscape, in the interest of visual amenity, and to contribute to the character of the local area in accordance with policies E1 and E2 of the Test Valley Borough Revised Local Plan 2016.

15. The development shall be provided in ongoing compliance with the noise limits as specified in the LF Acoustics report (dated 28th May 2020) approved under condition 16 of application 15/02591/FULLS on the 16th June 2020 unless otherwise agreed with the local planning authority.

Reason: To safeguard the amenity of nearby residential properties, in accordance with Policy E8 of the Test Valley Borough Revised Local Plan (2016).

Note to applicant:

- 1. In reaching this decision Test Valley Borough Council (TVBC) has had regard to paragraphs 186 and 187 of the National Planning Policy Framework and takes a positive and proactive approach to development proposals focused on solutions. TVBC work with applicants and their agents in a positive and proactive manner offering a pre-application advice service and updating applicants/agents of issues that may arise in dealing with the application and where possible suggesting solutions.**
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