

BILSHAM FARM SOLAR PARK
PLANNING SUPPORT STATEMENT
for
BNRG RENEWABLES LTD
October 2013



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1.0 INTRODUCTION

- 1.1 This Planning Statement has been prepared on behalf of BNRG Renewables Limited (BNRG) and Landlink Estates via BL 2 Solar Limited (hereafter 'the applicants') to support a planning application for development of a solar park at Bilsham Farm, off Drove Lane, Main Road, Yapton, BN18 0EB. The site is located approximately 0.6 km west of the village of Bilsham and 0.6 km north of the village of Flansham.
- 1.2 The purpose of this Statement is to set out the context for the application. It considers the need to increase generation of renewable energy and the benefits of solar power; describes the application scheme; assesses the extent to which it complies with the Development Plan and comments on other material considerations.
- 1.3 BNRG is a renewable energy company which specialises in the development of utility-scale solar PV projects. It aims to work with farmers and other landowners to bring forward sites that are suitable for sustainable energy production thereby helping to tackle climate change and contributing towards UK targets for a low carbon future. BNRG is working with a joint venture partner, Landlink Estates, to develop a solar park at the application site. Landlink Estates is a privately owned company that manages a significant agricultural and horticultural estate for a well-established group of companies, including Natures Way Foods. All of these companies are members of the Langmead Group which owns a significant agricultural and horticultural estate. Bilsham Farm forms part of that estate.

Driver for Proposed Development

- 1.4 Natures Way Foods is one of the leading fresh produce companies in the UK. After expanding during the 1990s, the Company now employs around 500 people and supplies prepared produce, salad and fruit grown to the retail and food service markets. These goods come from several farms, including Bilsham Farm. The Langmead Group was established in 1994 by brothers Robert and David Langmead, whose family has farmed in West Sussex since 1881. Each generation has diversified and expanded the holding to adapt to changing markets, ensuring its longevity for the future. The Langmead Group's total landholding within West Sussex comprises approximately 2,428 hectares (6,000 acres) of farming enterprise, including cottages, farmhouses, office space, industrial, manufacturing properties and assets in the renewable sector.
- 1.5 In 2006, the company set itself a challenge to 'significantly green' their business, and examined the various ways in which this could be done. The challenge was driven by a need to cut overall CO2 emissions in response to customer demand, and to cut electricity costs overall. It decided that building a large scale solar park (5 MW or more) on its landholding would allow it to achieve these objectives. Following several speculative approaches by various solar power companies, The Langmead Group decided that it's preferred approach was to seek planning permission for a solar park on its own terms rather than work via a third party. This would enable it to control the environmental and community benefits accruing from the development. BNRG was subsequently chosen by the company to deliver the project as a partner in view of its reputation as an environmentally sensitive developer and its experience in successfully promoting, designing, constructing and operating renewable solar parks across the UK.

The Importance of Renewable Energy

- 1.6 The UK Government is committed to increasing domestic renewable energy provision to address the projected growth in global energy demand and concern over long term fossil fuels supplies. Together, these issues place long term energy supply at risk. In addition to these trends, global warming and climate change necessitates ensuring that renewable resources are brought forward to provide a secure basis for the UK's future energy needs. These aims were reflected in the 2009 UK Government Energy Strategy White Paper which states within its Executive Summary that:

“We need to radically increase our use of renewable electricity, heat and transport. (The Strategy) sets out the path for us to meet our legally-binding target to ensure 15% of our energy comes from renewable sources by 2020: almost a seven-fold increase in the share of renewables in scarcely more than a decade.”

- 1.7 The Coalition Government has confirmed that the targets on renewable energy will continue to remain the same as those outlined within the 2009 Energy Strategy White Paper.

Benefits of Solar Power

- 1.8 Solar photovoltaic (PV) energy generation is a renewable power technology that uses solar panels to convert light from the sun directly into electricity. The electrical output of PV solar panels is dependent upon the intensity of the light to which it is exposed and this part of the country experiences good light levels that make solar panels an efficient form of renewable energy production. Photovoltaic cells do not need to be in direct sunlight to work, so even on overcast days PV solar panels will still generate a limited level of energy output.
- 1.9 Producing electricity with PV emits no pollution, produces no greenhouse gases and uses no finite fossil-fuel resources. Where, as has been generally recognised, the current consumption of and reliance on fossil fuels is considered to be unsustainable, there is a very real need to find a viable long term alternative solution.
- 1.10 Solar power is considered to be such a solution. Despite the extent of some ground based sites they are, as a whole, one of the most low-key types of renewable energy generators available. The low height of the arrays, the lack of noise and the minimal maintenance required all ensure that, once installed, the system causes no disturbance to the occupants of properties in the surrounding area. In respect of the application scheme, the proposed site has been selected because it is well screened and the equipment will not be intrusive within the surrounding countryside.
- 1.11 It is now widely accepted that climate change is actively progressing and that carbon emissions from the use of fossil fuels are a key contributory factor. The increased production of energy from renewable sources, such as solar PV, has very real benefits in off-setting carbon dioxide (CO₂) emissions and reducing the potential impact of greenhouse gases on climate change. It will also ensure a constant and affordable source of energy, contribute to economic stability and provide a further form of farm diversification to support rural economies.

Planning application and supporting documents

- 1.12 The planning application comprises the following documentation:
- The Completed Application Form;
 - The Completed Ownership and Agricultural Land Declaration Certificate;
 - Design and Access Statement;
 - Location Plan;
 - Site Block Plan;
 - Landscape Masterplan, including cross sections;
 - Panel Specification Plan;
 - Indicative Inverter elevations and specifications;
 - Indicative Substation Floor Plan and Elevations;
 - Security Fencing Plan; and,
 - Security Camera Details Plan.
- 1.13 The application is also accompanied by the following supporting reports and technical assessments:
- This Planning Statement;
 - Ecological Assessment;
 - Landscape and Visual Impact Assessment;
 - Flood Risk Assessment including a Surface Water Drainage Strategy; and,
 - Archaeological Assessment.

Environmental Impact Assessment

- 1.14 Following the submission of a formal Environmental Impact Assessment (EIA) Screening request in July 2013, Arun District Council confirmed on 31st July that the application scheme is not EIA development and, as such, it does not require the submission of an EIA.

Planning History

- 1.15 The applicant is not aware of any planning history affecting the site that is relevant to the determination of this planning application.

Pre-application consultation

- 1.16 In accordance with the Coalition Government's Localism agenda, the applicant considers it important to engage with the local community prior to the submission of a planning application.

- 1.17 In investigating the potential to develop a solar power scheme at Bilsham, a number of stakeholders were contacted directly in July 2013 to inform them of BNRG's work and to gauge their views. These included:
- Yapton ward councillors;
 - Felpham East ward councillors;
 - Barnham ward councillors;
 - Yapton Parish Council;
 - Barnham Parish Council; and
 - Residents living on Bilsham Lane.
- 1.18 A meeting with Bilsham Lane residents took place in August 2013 to discuss the proposal, with access and construction traffic being raised as key issues. The meeting resulted in a change in the proposed access route to Drove Lane, avoiding the use of Bilsham Lane, as well as the location of central inverters deep within the site. BNRG also met with Yapton Parish Council in September 2013. BNRG will continue to engage with local residents and councillors throughout the planning, development and construction processes.

Structure of Report

- 1.19 The remainder of this report follows the structure set out below:
- Section 2 Proposed Development.
 - Section 3 Planning Policy and material considerations.
 - Section 4 Planning Assessment.
 - Section 5 Conclusion.

2.0 PROPOSED DEVELOPMENT

Site location

- 2.1 The proposed development involves the installation and operation of a solar park with associated infrastructure and equipment at Bilsham Farm, off Drove Lane, Main Road, Yapton, BN18 0EB (**Figure 1** refers). It will have an installed capacity of approximately 14.5 MW, which is sufficient power for around 5,000¹ homes. The site comprises an arable field that is traversed by three drainage ditches and an access track. A small stone barn is centrally located within the site. It is surrounded by hedgerows, ditches and the watercourses of Ryebank and Lidsey Rife.



Figure 1: Site location

- 2.2 The site is used primarily for agricultural activities, including the growing of food crops.

Site selection

- 2.3 The proposed site has been selected following careful review of a number of other potential development locations.

¹ Figure based on a 13% capacity factor and 3,300kWh typical British household electricity use figures

- 2.4 The site forms part of a much wider land holding, which includes further land around the proposed site, but also other land within the District. The landholding has a mix of diverse uses which includes agricultural land and further detail of drivers behind the development is included in Section 1.4. In identifying a suitable site for the development of the proposed solar farm, all land was initially considered, and following a review against planning policy, landscape impact and general need, Bilsham Farm was identified as a suitable location.
- 2.5 The land holding at Bilsham Farm is extensive. Having identified the area as a suitable location, all land was initially appraised. The area to the east of the application site, adjoining Bilsham Road and Bilsham Lane was discounted due to the proximity of the land to nearby residential properties.
- 2.6 The proposed site has therefore been selected following careful review of a number of other potential development locations.

Description of development

- 2.7 This statement supports a planning application for a:
- “Solar Park comprising the erection of solar arrays, transformers and equipment housing, security fencing and ancillary equipment. Provision of new boundary landscaping and ecological enhancement measures”*
- 2.8 The following terms are used hereafter to describe the components of the proposed development:
- Photovoltaic (PV): Material that converts solar radiation into DC electricity.
 - Solar PV Cell: A single, non-divisible group of Photovoltaic Material, which can generate electricity from Solar Energy.
 - Solar PV Panel/Module: A manufacturer assembled group of Solar PV Cells within a supporting frame that provides simple interfaces to, and physical protection for the cells.
 - Table: The supporting framework onto which a number of Solar PV Panels are mounted.
 - Solar PV Array: A group of Solar PV Panels or Modules.
 - Solar PV Farm/Park: The collective term for an installation of equipment and infrastructure that forms a photovoltaic power generating installation.
 - Inverter: An electrical device that changes the direct current (DC) electricity produced by a photovoltaic material into alternating current (AC) that is suitable for feeding into the national grid.
 - Transformer: An Electrical Device that transfers Electrical Energy from one Voltage level to another.
 - Substation: A group of Electrical Switchgear that connects the Solar PV Farm to the National Grid.

Overview

- 2.9 The proposed development comprises installation of a number of rows of solar arrays, which are supported at intervals by posts driven directly into the ground. Conduits, set to the same depth, will be installed along the rows of panels to house the connecting cables.

- 2.10 The solar array needs to be laid out to maximise the production of electricity, with the panels being angled and orientated in a landscape view to optimise their exposure to direct sunlight. The lack of mature trees around the perimeter of the site, and within it, minimises the space that would be lost due to potential overshadowing. All development is to be kept well away from the boundaries where the hedgerows are located and could potentially cast shadows.
- 2.11 It is proposed that the panels will vary in height across the site as the western and southern parts of the site are located within the 1 in 1000 year fluvial flood area. Therefore to avoid any potential for damage from flowing water, it is proposed that the trailing edge of the panels in these areas will be set at 1.4 m, giving a maximum height in these areas of 2.85 m. Outside these locations, the panels will have a maximum height of 2.4 m, and be set 1 m above the ground.
- 2.12 The site itself will be developed by maintaining the topsoil in situ. If it is necessary to remove some top soil to enable installation, this will be stored on site until the underground infrastructure is installed, when it will be replaced.
- 2.13 The size of the installation is such that it will have an installed capacity of approximately 14.5 MW, which is sufficient power for around 5,000 homes.

Solar Array arrangement

- 2.14 The proposal is to establish a solar park of approximately 36 hectares area. This will comprise solar panels sited in rows known as 'arrays'.
- 2.15 The solar panels are fixed and will not track the sun by motors. There will therefore be no noise emitted by the arrays. Similarly the supporting electrical equipment will not emit noise above the ambient level and certainly would not be audible from outside the confines of the site boundaries. With no moving parts to the solar arrays there is little risk of mechanical failure. The solar panels are designed with an expected lifetime of 30 years with only a marginal loss of efficiency. This ensures that any long-term impacts of the development remain small-scale.
- 2.16 The solar panels will be bolt anchored to a metal frame (table), which will be mounted on steel posts driven or secured into the ground (the pile driven sub-construction method), to the depth of 1-2 m depending on the ground conditions. No substantial areas of concrete construction will be required, with the possible exception of foundations for the inverter and transformer stations.
- 2.17 The solar panels will be connected to inverters by cabling which are necessary to convert the DC current generated by the PV modules into AC current. The AC current is then fed into transformers where the voltage is changed (usually from 340 to 11,000 volts) for transmission of the energy with minimum losses to the point of connection to the grid. The inverters and transformers will be housed in buildings (referred to as 'stations') that have a small footprint of 28 m² each.
- 2.18 There is also a requirement for a primary substation compound of circa 10 m x 10 m to be placed on site. This compound will be located within the centre of the site.

- 2.19 The grid connection route, which will be underground, is likely to be to the south-east of the site, where it will join the existing sub-station off Yapton Road. This element of the scheme will be delivered by the local electricity supplier using their statutory powers. There will be a fence sited around the perimeter of the array to protect it from theft, vandalism or damage. The perimeter fencing will be a deer fence of up to 2.4m, which is considered to be more sympathetic to the rural location. It will be erected on the inside of the boundary hedgerows and vegetation. The fence line will be set at least 8 m from any boundary hedges.
- 2.20 The arrays are set apart by approximately three times their overall height in order to avoid shadowing, giving open aisles of about 6–10 m in width between them, although the exact distance will depend on the topography of the site and will be designed to ensure optimum energy generation.
- 2.21 It is proposed that the site is developed and used for solar energy production for a period of 30 years. The site will then be decommissioned in its 31st year, the infrastructure removed and the land returned to solely agricultural use.

Site access

- 2.22 Vehicular access will be via the existing field access which is located off Drove Lane in the eastern corner of the site. If required, small sections of hedgerow on both sides of this entrance may be trimmed to provide appropriate visibility during the construction phase, but will be fully re-instated upon completion of construction activities.
- 2.23 The construction of the park will require truck deliveries to transport equipment and materials to the site. Standard vehicles will be used with no requirement for abnormally long or wide loads. It is proposed that a construction compound will be set up within the site and used for the storage of all plant and equipment and for provision of necessary welfare facilities. Upon completion of the development this area will be restored to grassland.
- 2.24 Once operational, the site will continue to be accessed via the existing field access.
- 2.25 There will be no access to the development via Bilsham Lane.

Construction and Operational Phases

Construction Phase

- 2.26 The anticipated construction period will be approximately three months and will consist of the following operations; listed here in the approximate order of implementation:
- Preparation of the construction compound, if required;
 - Laying of proposed access track, if required;
 - Digging of cable trenches;
 - Erection of fence and gates to define the site boundaries;
 - Delivery of panels, frames and inverters, concrete for building foundations, if required;
 - Installation of frames and panels;
 - Cable laying;

- Commissioning of the panels and installation of inverter and transformer stations and connection to grid;
- Reinstatement works primarily to the construction compound, if required.

Operational Phase

- 2.27 Once the site is built and operational it will be visited monthly for routine maintenance and cleaning.

3.0 PLANNING POLICY

Development Plan policy

- 3.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 upholds the established requirement for applications for planning permission to be determined in accordance with the Development Plan, unless material considerations indicate otherwise.
- 3.2 This section identifies the Development Plan policies relevant to the site and assesses the proposed scheme against these.
- 3.3 The Development Plan relevant to the application site includes:
- Saved local plan policies – the Arun District Local Plan.

Arun District Local Plan

- 3.4 The Arun Local Plan with a plan period to 2011 was adopted in 2003. The majority of the policies were “saved” by order of the Secretary of State in 2007. It will be replaced by the emerging Arun Local Plan (2011-2029) in due course.
- 3.5 The adopted Local Plan Proposals Map indicates that the site is unallocated rural land, as detailed in **Figure 2** (the site is circled in red). It also reveals that the west boundary of the site has been identified as part of the South Coast Cycle Route (narrow dashed red line).

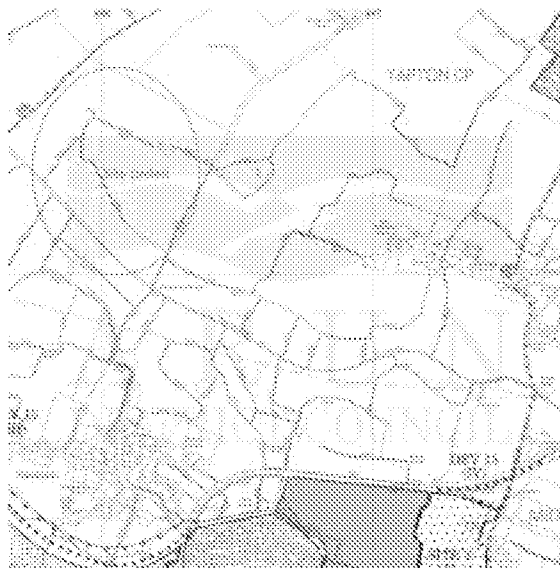


Figure 2: Proposals map extract

- 3.6 The policies considered pertinent for this application are listed below.

POLICY GEN21: Renewable Energy

“Planning permission will be granted for development for renewable energy generation provided that:

- (i) there is no significant harmful environmental effect on the quality of the natural and built environments;*

- (ii) *there is no unacceptable impact on the amenity of neighbouring residents;*
- (iii) *there is no adverse effect on public safety;*
- (iv) *development will make a contribution to meeting need on a local, regional or national basis and the reduction in emissions of damaging greenhouse gases."*

POLICY GEN2: Built-up Area Boundary

"The boundaries of the built-up area for the purposes of the West Sussex County Structure Plan and this District Local Plan are defined on the Proposals Map. Development or redevelopment will be permitted within the built-up area boundaries, subject to the other policies in this plan. Outside the built-up area boundaries, development or redevelopment will not be permitted unless it is consistent with other Local Plan policies."

POLICY GEN3: Protection of the Countryside

"Outside the Built-Up Area, as defined on the Proposals Map, the countryside will be safeguarded for its own sake. Development will not be permitted unless:

- (i) *it meets the operational needs of agriculture, forestry, the extraction of minerals or the deposit of waste; or*
- (ii) *for quiet, informal recreation; or*
- (iii) *for the diversification of the rural economy; or*
- (iv) *for essential road schemes; or*
- (v) *it is in accordance with a policy in Sections 2 and 3 of the plan referring to a specific use or type of development.*

Permission will not be given for the extension of isolated groups of buildings or the consolidation of linear or sporadic development unless the proposal accords with criteria (i) to (iii) or (v)."

POLICY GEN9: Foul and Surface Water Drainage

"Planning permission for development which will materially increase foul and/or surface water discharges will be refused unless the Local Planning Authority is satisfied that either adequate drainage capacity exists or appropriate drainage capacity can be provided as part of the development. Consideration should also be given to the use of Sustainable Urban Drainage Systems (SUDS) as alternatives to conventional drainage where appropriate."

POLICY GEN29: Nature Conservation across the District

"Development will only be permitted on sites which contain semi-natural habitats, features of nature conservation interest, or within wildlife corridors, where these can be largely retained and sympathetically incorporated into the scheme. Legal agreements may be used to offset the loss of, or impact on, any nature conservation resource present on the site prior to development."

POLICY AREA17: Sites of Archaeological Interest

"Permission will not be granted for development that would be harmful to the significant archaeological interest of a site. Where the presence of archaeological remains is known or suspected:

- (i) *the applicant must arrange for archaeological assessment of the site to be carried out before the planning application is determined;*
- (ii) *where the assessment shows that the physical preservation of remains in situ is not justified, conditions may be attached to any permission granted that development will not take place until provision has been made by the developer for a programme of archaeological investigation and recording. The programme will be carried out prior to the commencement of the development; and*
- (iii) *whenever practicable, opportunities should be taken for the enhancement and interpretation of archaeological remains left in situ."*

POLICY GEN13: Public Access to the Coast

"The Council will require proposals for development or redevelopment along the coast to establish or improve access to the public on foot, and by cycle wherever possible unless this would result in damage to nature conservation interests."

- 3.7 The following supporting text (paragraph 1.56) to Policy GEN13 clarifies that the South Coast Cycle Route has not yet been finalised:

"West Sussex County Council have signed an initial South Coast Cycle Route. This will involve the construction of new cycle paths, traffic calming measures where necessary and the use of lightly trafficked country lanes. The final line of the route, however, may differ from that shown on the Proposals Map. It is hoped that the South Coast Cycle Route shown on the Proposals and Inset Maps will eventually form part of the National Cycle Network (NCN); any changes to this route to comply with NCN standards, or to improve its attractiveness, will be shown on updated maps" (our emphasis)

Summary

- 3.8 The application site is not subject to any specific land use designations and is not of significant landscape or archaeological value. Policy GEN21 is supportive of renewable energy, and the proposal satisfies all of the relevant criteria.
- 3.9 Solar power is particularly positive in terms of renewable energy technology due to the limited height of the panels and the ability to follow topography. This means that it can be designed to create minimal landscape and visual effects. In the context of the wider landscape, the development will have only a negligible impact on views. With mitigation measures established, the views would be almost fully screened.
- 3.10 Although the site is not of intrinsic ecological value, existing features of ecological interest will be retained in accordance with policy GEN29 and overall biodiversity interest enhanced. Ecological interest associated with existing tree cover will be supplemented with substantial additional planting, where necessary.
- 3.11 In view of the above it is considered that the proposed development is in conformity with the Development Plan. Prior to making a decision on the application however, the Council should review any other material considerations which may suggest otherwise.

Material Considerations

- 3.12 Material considerations in this instance include the Council's emerging Local Plan (2011-2029) and the wider policy framework for renewable energy.

Emerging Arun Local Plan (2011-2029)

- 3.13 At a Special Council meeting on 29 May 2013 Members agreed housing numbers for the Draft Arun Local Plan (2011-2029) and decided that they wanted to examine some of the underlying data for the Strategic Housing Market Assessment (SHMA) in order to inform a discussion on development locations. Once adopted, it will replace the saved policies from the 2003 Arun Local Plan.
- 3.14 Policy DM21 is positively expressed because it is clear that Renewable Energy development proposals will be supported, subject to satisfying a number of criteria, i.e.:
- adverse impacts to landscape, habitats, the historic environment and residential amenity are minimised;
 - the Council's landscape assessment and sensitivity studies have been taken into account;
 - there are no detrimental cumulative impacts; no harm to designated sites; there are benefits to host communities and opportunities for environmental enhancement;
 - it achieves integration with other developments; and,
 - a suitable connection to the electricity distribution network is demonstrated.
- 3.15 Given, however, that there is no current timetable for agreeing and publishing the Draft Local Plan, Policy DM21 and other emerging policies must be attributed a lesser weight than current Development Plan policies and the National Planning Policy Framework (discussed below).

National Planning Policy Framework (The Framework)

- 3.16 The Framework, published by the Coalition Government in March 2012 to provide an overhaul of the planning system, introduces a presumption in favour of sustainable development; seeks to support the delivery of renewable and low carbon energy; and requires local authorities to take a positive approach to development.
- 3.17 Paragraph 7 of the Framework confirms that there are three dimensions to sustainable development: economic, social and environmental.
- 3.18 Paragraph 14 of the Framework emphasises that the presumption in favour of sustainable development should be seen as a golden thread running through decision-taking, which means:

“approving development proposals that accord with the development plan without delay; and

where the development plan is absent, silent or relevant policies are out of date, granting permission unless:

- *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or*
- *specific policies in this Framework indicate development should be restricted.”*

3.19 Paragraph 6 of the Framework explains that the guidance included in subsequent paragraphs, 18 to 219, taken as a whole, constitute what the Government intends as the meaning of sustainable development in planning practice.

3.20 Paragraph 17 of the Framework sets out twelve core planning principles to underpin decision-taking. These principles include; supporting the transition to a low carbon future, recognising the intrinsic character of the countryside, reducing pollution, encouraging multiple benefits from the use of land in rural areas and conserving heritage assets. The policies of the Framework flow from these principles.

3.21 Under the theme ‘Supporting a prosperous rural economy’ paragraph 28 second bullet suggests that local plans should:

“promote the development and diversification of agricultural and other land-based rural businesses.”

3.22 With regard to the theme ‘Meeting the challenge of climate change, flooding and coastal change’, paragraph 93 identifies the following:

“Planning plays a key role in helping to shape places to secure reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.”

3.23 Paragraph 95 goes on to state that:

“To support the move to a low carbon future, local planning authorities should:

- *plan for new development in locations and ways which reduce greenhouse gas emissions...”*

3.24 Paragraph 97 requires local authorities to help increase the use and supply of renewable and low carbon energy, they should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources and should:

- *“have a positive strategy to promote energy from renewable and low carbon sources;*
- *design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;...”*

3.25 Paragraph 98 provides specific guidance in relation to the determination of planning applications and identifies that local planning authorities should:

- *not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*

- *approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas” (our emphasis).*

3.26 With regard to agricultural land, paragraph 112 states that:

“Local Planning Authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.”

3.27 This requirement is clarified by the recently published Planning Practice Guidance on renewable and low carbon energy (**paragraph 3.30** of this statement refers).

3.28 Under the theme ‘Conserving and enhancing the historic environment’ paragraph 128 states that:

“In determining planning applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.”

3.29 This Planning Statement demonstrates that the proposed development will positively address all of the above key principles and support sustainable development. Justification for this conclusion is provided at section 4.

Planning Practice Guidance for Renewable and Low Carbon Energy

3.30 This document, published by DCLG in July 2013, provides advice on the planning issues associated with the development of renewable energy. It should be read alongside the Framework.

3.31 The fourth bullet under paragraph 6 emphasises that there is an intrinsic need for renewable energy:

“...Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.”

3.32 The first bullet under paragraph 27 clarifies paragraph 112 of the Framework, which concerns the approach in considering developments on agricultural land; it suggests that local planning authorities need to consider:

“encouraging the effective use of previously developed land, and if a proposal does involve greenfield land, that it allows for continued agricultural use and/or encourages biodiversity improvements around arrays” (our emphasis).

- 3.33 Paragraph 28 suggests that the approach to assessing cumulative landscape and visual impacts of large scale solar parks is likely to be the same as assessing the impact of wind turbines. However, it also makes the following distinction between these two types of renewable energy developments:

“...in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.”

- 3.34 Paragraph 16 clarifies that local planning authorities should be flexible in potentially applying buffer zones/separation distances between renewable energy developments and other land uses. It states:

“...Other than when dealing with set back distances for safety, distance of itself does not necessarily determine whether the impact of a proposal is unacceptable. Distance plays a part, but so does the local context including factors such as topography, the local environment and near-by land uses.”

International Legal and Policy Context

- 3.35 In 1992, at the Earth Summit in Rio, countries from across the world joined an international treaty, the United Nations Framework Convention on Climate Change. The purpose of the treaty was to consider in a cooperative approach what could be done to limit global temperature increases and the resulting climate change, and to cope with the already inevitable consequences on human populations and the wider natural environment. By 1995, it became clear that emission reductions provisions in the Convention were inadequate and further negotiations were launched to strengthen the global response to climate change. Two years later the Kyoto Protocol was adopted, which legally binds developed countries to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on 1 January 2013 and will end in 2020.
- 3.36 As a signatory and ratifier of the Protocol, the UK is obliged under international law to deliver on mitigation targets. This requires the UK (as an Annex I country) to submit:
- National communications containing detailed information on GHG emissions, climate-related policies, mitigation efforts, adaptation policies, and the level of financial and technical support that it is providing to developing countries); and
 - GHG inventories: detailed information on emissions and methodologies used to calculate those emissions.

European Legal and Policy Context

- 3.37 Concurrently with the United Nations Framework Convention, the European Union (EU) has progressed through a series of initiatives to deliver a comprehensive strategy and action plan to reduce climate change emissions and manage the effects of global warming.
- 3.38 EU leaders have committed to transforming Europe into a highly energy-efficient, low carbon economy via:
- a 20% reduction in EU greenhouse gas emissions from 1990 levels;
 - raising the share of EU energy consumption produced from renewable resources to 20%;

- a 20% improvement in the EU's energy efficiency; and,
- further targets are set for reducing greenhouse gas emissions progressively up to 2050, with actions implemented through a package of binding legislation on member nations.

3.39 All countries within the EU, including the UK, are listed under Annex I of the Kyoto Protocol. As such, the UK and EU are legally bound to meet the mitigation targets which they have set or face UN sanctions. In this context, European and UK policy is heavily focussed on the need to hit emissions targets.

National Legal and Policy Context

3.40 Therefore in a national context, there is a strong legal and policy imperative to deliver on international agreements to reduce greenhouse gas emissions, and increase energy consumption produced from renewable resources.

3.41 International obligations are transposed via domestic legislation into UK law and policy. The key legislation is the 2008 Climate Change Act, which places a duty on the Secretary of State for Energy and Climate Change to ensure that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is at least 80% lower than the 1990 baseline and gives ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets. An independent Committee on Climate Change was created under the Act to provide advice to UK Government on the targets and related policies.

4.0 PLANNING ASSESSMENT

Introduction

- 4.1 Following the above review of development planning policy, this section assesses the scheme against these policies.
- 4.2 Based on our review of the scheme and the identified Development Plan policies, it is considered that the key issues against which the scheme should be assessed are:
- Principle of development;
 - Landscape considerations;
 - Agricultural land quality;
 - Biodiversity considerations;
 - Archaeology;
 - Flooding;
 - Traffic and access issues;
 - Other environmental issues including noise, and impact on residential amenity; and
 - Design Issues.

Principle of development

- 4.3 The proposed development will consist of approximately 14.5 MW of installed capacity, generating electricity from a wholly renewable source. Producing electricity with PV emits no pollution, produces no greenhouse gases and uses no finite fossil-fuel resources. The increased production of energy from solar PV offers very real benefits in savings in CO₂ emissions and reducing the impact of greenhouse gases on climate change. The development will also ensure a constant and affordable source of energy, contribute to economic stability and provide a further form of diversification to support the rural economy of West Sussex.
- 4.4 Part 10 of the Framework states that local authorities should “*have a positive strategy to promote energy for renewable and low carbon sources*” and “*design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts.*”
- 4.5 In paragraph 98, LPAs are advised to approve an application (unless material considerations indicate otherwise) if its impacts are (or can be made) acceptable. In relation to conserving and enhancing the natural environment, LPAs should ensure that valued landscapes are protected and enhanced (paragraph 109).
- 4.6 Policy GEN21 of the Local Plan provides that planning permission will be granted for renewable energy developments subject to a number of criteria, including no significant adverse impacts on natural and built environments, residential amenity, public safety and ensuring that they make a contribution to meeting a need. The site lies in the open countryside and accordingly, there will be no impacts on the built environment. Technical supporting reports show that the scheme has no harmful effects on biodiversity or on the amenities of the occupiers of nearby residential

properties. A fence of up to 2.4 m in height is proposed around the perimeter of the site to prevent unauthorised access and therefore also protect members of the public, employees of Natures Way Foods and users of nearby Public Rights of Way (PRoW). Both the Framework and the Planning Practice Guidance were published more recently than the adopted Local Plan. The former is clear that applicants no longer have to demonstrate the need for renewable energy developments whilst the latter emphasises that there is an intrinsic need for renewable energy.

4.7 Policy GEN3 of the Local Plan does not specifically preclude development in the countryside. The Policy explains that development will be appropriate outside of built-up areas if it represents one of the five criteria listed, as follows:

- it is necessary for agriculture, forestry, minerals extraction or waste deposit;
- recreational use;
- diversification of the rural economy;
- it relates to an essential road scheme;
- it accords with the Area Policies and those that relate to Specific Types or Forms of Development (Sections 2 and 3 of the Local Plan respectively).

4.8 The proposed development complies with this policy by making a direct contribution to diversification of the rural economy

4.9 It is therefore considered that the principle of development in this rural location is acceptable, subject to other planning policy considerations, which are discussed in detail below.

Landscape considerations

4.10 The planning application is supported by a Landscape and Visual Assessment, which identifies that the main landscape effects include partial temporary loss of existing arable land during construction and the temporary and reversible alteration to the appearance of the application site's land cover during operation. All hedgerows, trees, woodland and field shapes and sizes will be retained intact and, as a result, the landscape will not suffer any permanent alteration.

4.11 The proposed development will initially result in some major adverse impacts on the character of the local landscape, but these are impacts that are contained to a small, localised area. Once mitigation measures have established (approximately 5-7 years) the development will be screened from view to the extent that these impacts will become negligible or gain minor beneficial impacts. Once decommissioned, with the mitigation planting measures left in place, the character of the local landscape will have gained minor beneficial impacts.

4.12 There will be no significant views of the proposed development from the settings of any designated heritage assets, such as Listed Buildings and Scheduled Monuments. During construction and the first few years of operation the proposed development will potentially result in major visual impacts on the visual amenity of PRoW receptors immediately adjacent to the site. This affects approximately 600 m of footpath to the northwest of the site and 500 m of footpath on the southeast edge of the site. There

are no dwellings with significant views of the site. As part the assessment, a number of mitigation measures are proposed:

- A new hedgerow and tree belt planted along the southwest, northwest and north site boundary. This will include a 1.2 m thick hedgerow and a 4.5 m wide area of tree belt planting (approximately 3 trees in depth). Trees will provide a more instant, higher level, partial screening. Full establishment is expected between 5-7 years when the hedgerow will be managed at a height of 3 m. This will also fill gaps in the northeast boundary hedgerow;
- A new 1.2 m thick boundary hedgerow along the southeast site boundary, set back 3 m from the line of the PRoW. Full establishment is expected between 5-7 years when the hedgerow will be managed at a height of 3 m;
- Two interpretation boards – one on the PRoW north of the site and one on the PRoW south of the site. These will inform the public of the solar park and the planned mitigation and landscape improvements, temporary lifespan of the proposed development and the benefits of solar energy; and
- Surface improvements to the surfacing of the footpath to the south of the site. This will incorporate a 1.8m wide gravel path for 600m of the footpath between Drove Lane and the footbridge, south of the site.

4.13 Once mitigation measures have established they will effectively screen all views into the development and the visual impacts will be reduced to that of negligible significance or gain some minor beneficial enhancements to views.

4.14 Overall, it is considered that the proposed development along with its mitigation planting is acceptable in terms of landscape and visual impact.

Agricultural land

4.15 The Local Plan was adopted in 2003 and covers the period to 2011. Whilst the majority of policies have been saved, Policy Area 12, which relates directly to the protection of agricultural land, expired in September 2007. It is intended to be replaced with Policy DM10 (Soils), supporting text to which (paragraph 11.1.6) requires that all applications on BMV land which involve 'permanent loss' of 1 hectare or more to be accompanied by a report on agricultural land. As such, Policy DM10 does not apply to schemes that propose temporary development on grade 1, 2 and 3a land, such as the proposed solar park at Bilsham Farm. Policy DM10 has yet to be subject to Examination and therefore carries little weight in the determination of this planning application. Instead, the case should be considered against the requirements of paragraph 112 of the Framework.

4.16 Paragraph 112 of the Framework aims to safeguard the Best and Most Versatile (BMV) agricultural land (grades 1 to 3a) from inappropriate development, i.e. development unrelated to agricultural or forestry, unless there is a strong case in support of development that overrides protection.

4.17 Data from DEFRA indicates that the total land area used for farming in Arun and the neighbouring administrative areas of Adur and Worthing is 13,738 hectares (ha)². The application site measures approximately 36ha and is mainly classified as Grades

² Reading Agricultural Consultants Ltd, 2013, *Soil and Agricultural Land Assessment Study Arun District Council*

2 and 3 with a small area of Grade 1. It therefore represents 0.26% of the total farmland in Arun, Adur and Worthing.

- 4.18 The Council's recently published Soil and Agricultural Land Assessment Study (hereafter 'The Council's Soil Study') acknowledges that when compared with the average proportions of land of differing quality across England, Arun District has a relatively high proportion of BMV land. Figure 4 within the document shows the provisional agricultural land classification of the West Sussex Coastal Plain; Arun District covers much of the east side of this recognised landscape area. Assuming that all of the Grade 3 land is classified as Grade 3a, this indicates that approximately 75% of the area is BMV. If a worst case scenario is assumed that this proportion of BMV is aggregated across the total farmland in Arun, Adur and Worthing, and the entire application site is also BMV, then the application site represents 0.35% of the total BMV in the three administrative areas. This figure is highly precautionary, in that it does not include the quantum of land that will remain undeveloped, and in continuing agricultural use, within the solar park.
- 4.19 Farming across the UK is a business, with farmers keen to ensure they get the best return from their land. There is therefore no imperative for farmers to grow food crops. At present, for example, 1m tonnes of wheat are being grown in the UK for the production of bioethanol. There are also further changes due to be imposed upon UK farmers as a result of the EU CAP Reform Directive. This is expected to shortly announce mandatory ecology focus areas, which will require all farmers to take a percentage of their land out of cropping altogether and leave fallow for a period of time to enhance the environmental benefits of the soil. This is expected to be a requirement regardless of the ALC grade of the land.
- 4.20 Whilst the site is classified as predominantly Grade 1 land, there are actually some variations across the site, which impacts upon the overall productivity of the land. As a result if the land was to be used for fruit and vegetable production, Natures Way Foods has confirmed that it would require continual irrigation.
- 4.21 Development of the site as a solar park is part of a historical and continuing process of agricultural diversification (**paragraph 1.4** refers), used by the landowner to ensure that maximum use is made of the entire land holding. The additional income from the solar park will enable Natures Way Foods to plan with certainty the future direction of the existing agricultural business and make investments on other parts of the wider agricultural landholding which, without the certainty of income that the solar park will provide, would not otherwise be deliverable. Given changing climatic conditions, including the increase in wet summers and harsher winters, this certainty will ensure Natures Way Foods is well positioned to continue to operate within the agricultural market. Farm diversification funded by a solar park will also provide a significant boost to the company's sustainability credentials which, in turn, offers the key advantage of product differentiation in a competitive market place.
- 4.22 Notwithstanding the proposed solar park, the site could also be used for the grazing of small livestock to maintain the grassland around the arrays. The livestock would be grazed around the whole site, including under the arrays, to provide dual use of the land for agricultural and solar energy production.

- 4.23 Planning permission for the solar park is sought on a temporary basis for a period of 30 years, after which time the solar arrays, associated equipment and fencing will be removed and the land returned to solely agricultural use. A condition could also be imposed to require the site's restoration after this period. Importantly, the development retains all the existing top soil in situ, with the arrays simply driven into the ground.

Grid Connection

- 4.24 The applicant has already secured a grid connection, into the existing sub-station, off Yapton Road. The availability of the connection is an important consideration in the viability and deliverability of the proposed development and accordingly, the determination of this application. Whilst it is accepted that the development is on BMV land, and it may be argued by others that this loss is not acceptable and that other less valuable land should be used, this viewpoint:
- fails to understand the importance of a viable grid connection and, although it may be preferable to develop on lower grade quality land, the ability to export the significant green energy that will be generated by the development, should be afforded substantial weight in the assessment of the planning application ; and,
 - conflicts with The Council's Soil Study³, which acknowledges that *"the benefits of agricultural land are greater than food production alone, hence decisions to use or protect agricultural land, whether categorised as best and most versatile quality or not, are not necessarily simple."* The Study goes on to admit that agricultural land quality assessments, which use amongst other things the ALC grading system, *"...are essentially an economic measure of how capable the land is to produce crops, and do not take into account other advantages of agricultural land..."* It concludes that it is *"...for local planning authorities to evaluate which is of most benefit: the economic advantages of protecting high quality land, or the environmental advantages of protecting lower quality land."*
- 4.25 The proposed scheme will reduce CO2 emissions, reducing the potential impact of greenhouse gases on climate change, ensuring a constant and affordable source of energy and contributing to economic stability.
- 4.26 With regard to the Framework, it is demonstrated above that the proposed development will result in the temporary loss of a small area of BMV, which on the basis of the amount of quality agricultural land within Arun is not considered to be significant. Significantly, the retained agricultural use and biodiversity benefits extend beyond the requirements of the recently published Planning Practice Guidance, which only requires applicants to carry out one use or the other on large-scale solar parks.
- 4.27 On the basis of the currently available land within Arun, the proposed development represents use of a negligible area of agricultural land. Overall it is considered that the temporary loss of arable land and the minimal impact on the landscape is outweighed by the environmental benefits (improving site biodiversity via measures including new hedgerow planting and creation of wintering bird foraging habitat), as advocated by The Council's Soil Study, and providing a renewable energy source

³ Reading Agricultural Consultants Ltd, 2013, *Soil and Agricultural Land Assessment Study – Arun District Council*, paragraphs 1.5, 12.3 and 12.4.

which contributes to the UK Government's goal of cutting carbon emissions and achieves 20% energy production from renewable sources by 2020.

Biodiversity considerations

4.28 A Phase 1 Habitat Survey has been undertaken in support of this application. The site has been managed under intensive agricultural use, with the result that other than the hedgerows, ditches, woodland and barn, the majority of the site is of low ('Site' to 'Local') ecological value. The boundary hedgerows will be retained and strengthened within the proposed development and the panels will be set back from boundary features both to avoid any damage during construction and the potential for overshadowing, which might otherwise increase pressure for removal in the future.

4.29 The proposed development includes the following ecological enhancements:

- The planting of gaps in existing hedgerow gaps and the creation of a new species-rich hedgerow along the site boundaries will provide habitat enhancements for a range of wildlife;
- The creation of an 8 m wide wildlife protection zone around the perimeter of the construction zone/field boundaries will create a rough species-rich grassland habitat;
- A change of use from arable cultivation and conversion to grassland will potentially increase the value of the application site to wildlife;
- The cessation of the application of artificial fertilisers and pesticides will reduce run-off and subsequent pollution of drainage ditches as well as improve the biodiversity of habitats and suitability for wildlife;
- The installation of bat boxes will provide roosting enhancements for bats; and,
- The preparation and installation of a management plan will ensure the habitats are retained and enhanced.

4.30 The ecological report concludes that, subject to implementation of the avoidance, mitigation, compensation and enhancement measures outlined above, the proposed development is capable of being accommodated without significant negative impacts on ecologically sensitive receptors within the survey area.

4.31 The report further notes that:

"The enhancement measures proposed are likely to result in a range of benefits to the ecology of the local area, particularly through implementation of a dedicated, sensitive and appropriate management regime of habitats and features within the application site boundary."

Archaeology

4.32 The application is supported by an assessment of the potential archaeological impacts of the proposed development. The report references fieldwork which has been undertaken directly to the east of the Site and has identified the presence of a Bronze Age hoard, a possible Bronze Age occupation/activity site, large quantities of prehistoric artefacts and two possible Romano-British settlement/activity sites. The assessment therefore concludes that the application site may also contain archaeological remains.

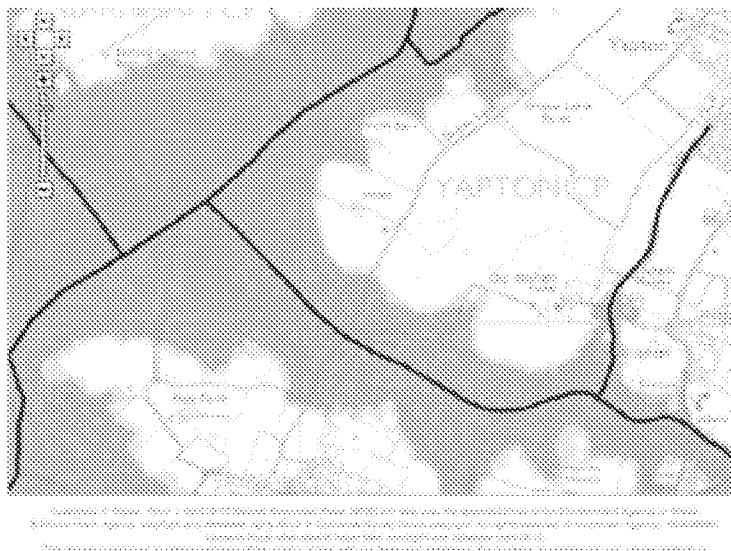
- 4.33 Studies of the historic mapping has shown that by 1838 the south-western part of the Site was mostly divided into small linear land parcels by drainage ditches, probably a reflection of the post medieval or earlier drainage of this part of the coastal plain. The remainder of the Site was divided into larger land parcels, although these had largely disappeared by 1876.
- 4.34 The assessment identifies that the proposed groundworks, notably the trenches required for the underground cables, have the potential to expose archaeology of later prehistoric and Romano-British date. Should this be found to be the case, full recording of any archaeological remains as they are exposed could be achieved by the imposition of a planning condition requiring the archaeological monitoring of all groundworks as they are carried out.

Flooding

- 4.35 The majority of the proposed PV site is situated within Flood Zone 3 with the remainder lying within Flood Zones 1 and 2. The site is at risk from both fluvial and tidal flooding. The assessment highlights that the most significant residual risk is from tidal flooding, either as a result of overtopping or breaching of existing coastal defences. Continual monitoring and maintenance schedules will minimise the risk of a breach occurring, however there can be no guarantee that a breach will not occur.
- 4.36 The most significant actual risk (the risk taking account of existing defences) to the site is from fluvial flooding. In the event that flood water does impact the site, sufficient mitigation measures are proposed so that the PV Park and equipment is not significantly affected and the overall functionality of the site is not compromised by the flood water.
- 4.37 Human presence on the site is limited and so the risk to human life is minimal. No significant changes will be made to the site's permeability characteristics and the existing surface water regime will be retained. The report demonstrates that the development will meet the requirements with respect to flood risk as outlined in NPPF and associated guidance; that it will be safe over the lifetime of the development, that it will not put human lives at risk and that it will not increase flood risk elsewhere.

Sequential Test

- 4.38 The FRA has identified that the primary risk for the Bilsham Farm site is from tidal flooding, with the 200-year extreme tide levels being in excess of site ground elevations. An area of the site is within Flood Zone 3, as defined in Table 1 in the Technical Guidance to the Framework (land having greater than a 1 in 200 annual probability of tidal flooding). According to the Technical Guidance, Table 3, proposed development classed as 'essential infrastructure' is compatible within Flood Zones 3a and 3b subject to the requirements of the Sequential Test and the Exception Test being met. Whilst the Framework does not explicitly categorise solar parks under a particular vulnerability classification, we would argue that such developments should be considered as 'essential infrastructure', given their similarity to other uses placed under that designation, specifically, utility infrastructure including power stations, substations and wind turbines.



- 4.39 Paragraph 101 of the Framework and Paragraph 5 of the Technical Guidance, respectively, clarify the aim of the Sequential Test and the approach to undertaking it, as follows:

“...Development should not be allocated or permitted if there are reasonable available sites appropriate for the proposed development in areas with a lower probability of flooding...”

“...Only where there are no reasonable available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.”

- 4.40 With regard to the Exception Test, the FRA has carried out this test and concluded that the test has been satisfied.
- 4.41 Unlike other types of developments, housing or industrial schemes for example, the Council do not allocate land for renewables, choosing to rely upon developers to bring forward and justify sites, which are more than often dictated to by the availability of points of connection to the national grid. As a consequence therefore, there is not a list of allocated or suitable alternative locations against which to compare the identified site. The applicant has agreed with the landowner of Bilsham Farm to develop a solar farm within their landholding to aid with farm diversification and to provide a significant boost to their sustainable credentials which, in turn, can be used as a key differentiator in the market. As a consequence, the sequential test has therefore only looked at the land available for development in the surroundings rather than across the whole District.
- 4.42 It is clear from the EA flood map (see below) that virtually majority of surrounding land is either within Flood Zone 3. It also shows that the only areas outside are very small parcels of land. Some of the land, in particular to the east has been discounted due to proximity to nearby residents.
- 4.43 Grid connection is critical to the delivery of the development. In assessing grid connection the applicants have also looked at overall capacity on the grid and also the actual point of connection. Importantly this does not have to be on site to be viable but must be within a reasonable distance to ensure it does not involve a prohibitive construction cost.

- 4.44 It could be argued that the land outside of the Flood Zone 3 should be used in the first instance, whilst the NPPF does not explicitly categorise photovoltaic parks under a particular vulnerability classification, we would argue that such developments should be considered as 'essential infrastructure', given their similarity to other uses placed under that designation, specifically, utility infrastructure including power stations, substations and wind turbines.
- 4.45 Based on this vulnerability classification, the NPPF Flood Risk Vulnerability and Flood Zone Compatibility matrix (NPPF, Table 3) indicates that 'essential infrastructure' development is appropriate in Flood Zone 3, subject to the exceptions test, which has been met and the proposed development is considered to meet the requirements of the Sequential Test.

Traffic and access

- 4.46 The majority of the traffic associated with the development will occur during the construction phase. The construction works will take approximately three months and in total will generate circa 100 x 40ft truck movements comprising delivery of all equipment and materials to the site. Standard vehicles will be used with no requirement for abnormally long or wide loads, with the possible exception of the transformer. All plant, equipment and contractor welfare facilities will be contained within a construction compound within the site (**Paragraph 2.19** refers).
- 4.47 Once operational there will be minimal on-site activity. There will be regular (envisaged monthly) access to the array for maintenance works, usually carried out by a road going van, such as a Ford Transit. Vehicular access will be via the existing field access which is located off Drove Lane, with the only internal roads being those providing access to the inverters. Access to the panels themselves will be available between the arrays.
- 4.48 It is therefore considered that the existing access provision is satisfactory and that the proposed development will not cause traffic or environmental issues that require any transport improvements which will harm the character of the locality. During its operation, the proposed development will therefore not result in any discernible increase in traffic on surrounding roads. The proposal is therefore in conformity with policy.

Other environmental issues including noise, and impact on residential amenity

- 4.49 The proposed solar park will cause minimal environmental impact during the installation and operation at the site and will not emit any harmful pollutants.
- 4.50 The solar panels are fixed and will have no moving parts. Therefore no noise will be emitted from the arrays. Similarly the supporting electrical equipment will not emit noise above the ambient level. Locating the inverters within cabins will ensure nothing will be audible from outside the confines of the site boundaries.
- 4.51 The proposed development will therefore not cause any unacceptable environmental impact.

Design considerations

- 4.52 The solar array has been laid out to maximize the production of electricity, with the panels being angled and orientated in a landscape view to optimise their exposure to direct sunlight. The south facing nature of the site makes it appropriate to accommodate the arrays with minimal wastage of space. Existing boundary planting has been retained, with the development kept away from these features where the existing vegetation could potentially cast a shadow onto the panels, which would reduce their efficiency.
- 4.53 There will be a fence sited around the perimeter of the array to protect it from theft, vandalism or damage. The perimeter fencing will be a deer fence of upto 2.4 m to reflect the rural landscape. The security fence will be erected on the inside of the boundary hedgerows and vegetation. The fence line will be set a minimum of 8m from the hedge.
- 4.54 As part of the scheme a number of environmental enhancement measures have been included, as described previously at paragraph 4.30.
- 4.55 Overall it is considered that, with the inclusion of the proposed mitigation and enhancement measures, the design of the scheme is acceptable. The application scheme satisfactorily mitigates impacts arising from the proposed development and additionally offers opportunities for valuable environmental enhancement as part of the developed scheme.

5.0 CONCLUSION

- 5.1. The proposed development involves the installation and operation of a solar park, with associated infrastructure and equipment, on agricultural land at Bilsham Farm.
- 5.2. In terms of visual impact on the surrounding landscape and sensitive receptors, careful consideration of the overall height of the arrays, coupled with setting back the solar panels from sensitive receptors and provision of additional screening vegetation, means that the solar park will have minimal visual impact. In addition, owing to the nature of the landscape and its relatively discrete location, the solar park will not be visible from any significant vantage points within the surrounding area, or impact on any nearby receptors. The supporting LVIA identifies that, with the proposed mitigation, there will be no significant visual impact as a result of the scheme.
- 5.3. With the mitigation measures proposed in the Ecological Assessment, the development is capable of being accommodated without adverse effect on ecology and the enhancement measures proposed could result in benefits to the local area.
- 5.4. The accompanying Surface Water Drainage Strategy and Flood Consequence Assessment demonstrate that the proposed solar park will not increase flood risk, either on site or in the surroundings. It is also considered that the scheme will have no significant impact on archaeological features.
- 5.5. There are no Development Plan policies which restrict the use of this site for a solar park development and there are no sensitive or other designations of relevance on the site. Furthermore Government policies are supportive of renewable energy developments.
- 5.6. The increase in renewable energy generation is of paramount importance within the UK, to reduce overall CO2 emissions by 50% by 2050. This will provide an alternative source of energy to our depleting fossil fuels and help assist in the mitigation of climate change. This provides material encouragement for the proposed solar park, which is further strengthened by renewable energy policies contained within the Development Plan. These policies promote generation of power from renewable energy sources and require renewable energy schemes to consider careful siting and minimisation of environmental and visual impacts.
- 5.7. The information provided with this application demonstrates that the proposed solar park development is in accordance with planning policy at the national and local levels. It will provide a reliable energy source which is not dependent on the use of fossil fuels and contributes to both local and national renewable energy targets.
- 5.8. It is therefore respectfully suggested that full planning permission should be granted for the proposed development.