

MC/14/2082

Date Received: 16 July, 2014

Location: Land At Malmaynes Hall Farm, Between Malmaynes Hall Road
And Hoopers Lane Lower Stoke Rochester Kent

Proposal: Installation of a solar energy facility utilising solar photovoltaic
panels

Applicant: Wessex Solar Energy

Agent:

Ward Peninsula

Recommendation of Officers to the Planning Committee, to be considered and determined by the Planning Committee at a meeting to be held on 5 November 2014.

Recommendation - Approval with Conditions

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

Reason: To comply with Section 91 of the Town and Country Planning Act 1990 (as amended).

- 2 The development hereby permitted shall be carried out in accordance with the following approved plans:
- Figure 1.1 (Location Drawing), received 31 July 2014;
 - Figure 1.2 Master Sheet, Sheet 1, 2, 3, received 31 July 2014;
 - Figure 4.1 (Mounted Panel Dimensions), received 31 July 2014;
 - Figure 4.2A & B (Inverter Cabin & Control Building), received 31 July 2014;
 - Figure 4.3 (Security Fence), received 31 July 2014;
 - Figure 4.4 (Security Camera), received 31 July 2014;
 - Plan A Master Sheet, Plan A Sheet 1, Sheet 2, Sheet 3, received 31 July 2014;
 - Plan B (Existing & Proposed Elevations), received 31 July 2014;
 - Plan C (Site Topographical Survey), received 31 July 2014;

- Plan E, Plan E Sheet 1, 2 & 3 (Site Boundary and Indicative Layout), received 4 August 2014; and

- Plan F (Site Application Boundary), received 1 August 2014;

Reason: For the avoidance of doubt and in the interests of proper planning.

- 3 The solar park hereby approved, including all PV Panels, Inverters, Transformers, Control Building and associated plant, together with cabling, machinery and the site access track, shall be removed from the site before the expiration of 28 years from the date of this permission in accordance with a scheme of decommissioning works. The decommissioning of the site shall be carried out in accordance with the scheme outlined in Section 4.8 (Decommissioning) of Volume 1 of the Environmental Statement (July 2014) unless an alternative scheme, which should also include details of land restoration and a timetable to carry out the works has been first approved in writing by the Local Planning Authority.

Reason: To ensure that the PV Panels and ancillary equipment are removed at the end of their operational life, in a suitable manner, in the interests of visual and environmental amenity in accordance with policies BNE1 and BNE25 of the Medway Local Plan 2003.

- 4 No decommissioning work, including fence, cable and solar panel removal, shall take place until a mitigation strategy for any potential ecological impacts, informed by an up-to-date ecological impact assessment and any necessary specific species surveys, has been submitted to and approved in writing by the Local Planning Authority. The approved mitigation strategy shall be adhered to and implemented strictly in accordance with the approved details.

Reason: In the interest of biodiversity and ecology on the site in accordance with policies BNE37 and BNE39 of the Medway Local Plan 2003.

- 5 All construction work associated with the development hereby permitted, including the use of machinery and cranes, shall only take place between 0800 and 1800 Monday to Friday inclusive, and between 0800 and 1300 on Saturdays, with no workings on Sundays and Bank Holidays.

Reason: To ensure that the development does not prejudice the amenities of neighbouring properties and the local amenity in accordance with policy BNE2 of the Medway Local Plan 2003.

- 6 No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a scheme of landscaping and boundary treatment. The landscape scheme shall include the planting of new native hedgerows and trees as detailed within the submitted Landscape Masterplan, and any security fencing requirements. All planting, seeding and turfing comprised in the approved scheme of landscaping shall be implemented during the first planting season following completion of the

development. Any trees, hedgerow or plants which within 5 years of planting are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless the Authority gives written consent to any variation.

Reason: Pursuant to condition 197 of the Town and Country Planning Act 1990 and to protect and enhance the appearance and character of the site and locality, in accordance with Policy BNE1 and BNE6 of the Medway Local Plan 2003.

- 7 No development shall take place until a landscape management plan, including long term design objectives, management responsibilities and maintenance schedules for all landscape areas, for the lifetime of the development, has been submitted to and approved in writing by the Local Planning Authority. The landscape management of the site shall be carried out in accordance with the approved plan.

Reason: Pursuant to condition 197 of the Town and Country Planning Act 1990 and to protect and enhance the appearance and character of the site and locality, in accordance with Policies BNE1 and BNE6 of the Medway Local Plan 2003.

- 8 No development shall take place until an Operational Environmental Management Plan (OEMP), detailing operations and maintenance of PV Panels/solar arrays, transformers/inverters, other plant on site and security of the site has been submitted to and approved in writing by the Local Planning Authority. The approved programme shall be implemented at all times that the Solar Panels are present on site.

Reason: In the interests of health, safety and security and the provisions of policy BNE8 of the Medway Local Plan 2003.

- 9 No development shall take place on site until a scheme detailing the disposal of surface water, based on sustainable drainage principles, and an assessment of the hydrological and hydro-geological context of the development has been submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.

Reason: To ensure the proposed development does not overload the existing drainage system resulting in flooding.

- 10 No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Reason: To ensure that features of archeological interest are properly

examined and recorded in accordance with policy BNE21 of the Medway Local Plan 2003.

- 11 If, during development, contamination not previously identified is found to be present at the site then no further development shall be carried out until the developer has submitted a method statement, and obtained written approval from the Local Planning Authority. The Method Statement must detail how this unsuspected contamination shall be dealt with.

Reason: To ensure that the development is undertaken in a manner which acknowledges interests of amenity and safety in accordance with Policy BNE23 of the Medway Local Plan 2003.

- 12 No development shall take place (including any demolition, ground works and site clearance) until an Ecological Design Strategy (EDS) has been submitted to and approved in writing by the Local Planning Authority. The EDS shall contain a method statement for avoiding and minimising the impacts of biodiversity together with ecological enhancement and shall include the following:

- a) Purpose and conservation objectives for the proposed works;
- b) Review of site potential and constraints;
- c) Detailed design(s) and/or working method(s) to achieve stated objectives;
- d) Extent and location/area of proposed works on appropriate scale maps and plans;
- e) Type and source of materials to be used e.g. native species of local provenance;
- f) Timetable for implementation demonstrating that works are aligned with the proposed phasing of the development;
- g) Persons responsible for implementation of the works.
- h) Details of initial after care and long term maintenance;
- i) Details for monitoring and remedial measures.

The EDS shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter.

Reason: In the interests of biodiversity and ecology in accordance with the provisions set out under policies BNE37 and BNE39 of the Medway Local Plan 2003.

- 13 No development shall take place (including demolition, ground works and vegetation clearance) until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include the following:

- a) Risk Assessment of potentially damaging construction activities;
- b) Identification of 'biodiversity protection zones';
- c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction;
- d) The location and timing of sensitive works to avoid harm to biodiversity

features;

e) The times during construction when specialist ecologists need to be present on site to oversee works;

f) Responsible persons and lines of communication;

g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person;

h) Use of protective fencing, exclusion barriers and warning signs;

i) Details of the construction compound locations (including areas of storage for materials, equipment and for the construction workers facilities) and any internal site tracks needed for the construction period;

j) Methods to deal with noise, dust and air quality issues; and

k) Details of routes for construction traffic, hours of traffic movements, methods to maintain and clean routes together with traffic monitoring.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details.

Reason: In the interest of ecology, biodiversity and amenity in accordance with the requirements of policies BNE2, BNE37 and BNE39 of the Medway Local Plan 2003.

For the reasons for this recommendation for approval please see Planning Appraisal Section and Conclusions at the end of this report.

Proposal

The application seeks full planning permission for the installation of a 12 Megawatt (MW) solar energy facility utilising solar photovoltaic panels, together with associated equipment, transformer housing, security fencing and ancillary equipment, along with the provision of landscaping and boundary landscaping. The site is located on land south of Hooper's Lane, approximately 0.85 kilometres (km) west of Stoke and approximately 8km north east of Strood. The application site comprises arable land, covering a total area of approximately 26.6 hectares (ha). During operation, the solar plant/equipment would occupy the majority of the proposed site.

The key elements of the project include the PV panels (57,400), the Inverter/Transformer cabins (up to 12 each), the Control Building and the on-site access track. The project would be capable of generating 12MW of electricity from solar energy for export into the regional electricity grid. Solar energy is an unlimited energy resource, and can be harnessed (through solar radiation) to either directly generate hot water for heating, known as '*solar thermal*' projects, or generate electricity. Solar energy can be used to generate electricity in two ways, either using PhotoVoltaic (PV) Cells or by arranging reflective surfaces to focus sunlight onto a single point, which then heats water to produce steam to drive steam turbines, known as '*concentrated solar power*' projects. For the purposes of this projects PV Cells are the preferred technology.

Crystalline Panels are being considered for the proposed solar park. Crystalline Panels are of the order of 1600mm (length) by 1000mm (width), and 50mm (depth). The PV Panels are positioned at an angle of between 20° and 35°, and would have a

height of no more than 3.5m from the ground to the top of the PV Panel. To ensure that the PV Panels remain in their proper position they will be fixed onto steel frames.

The PV Cells would require interconnection with the proposed Solar Park site to Inverters that would convert the low voltage direct current to low voltage alternating current (circa 33 kiloVolts(kV)) for export to the regional electricity grid. A network of cables connect the Transformers to a set of switchgear from which electricity would be exported to the regional electricity grid. The Inverters and Transformers would be housed in dedicated Inverter/Transformer Cabins, and the switchgear would be housed in a dedicated Control Buildings.

From the Control Building, it is proposed that electricity would be exported to the regional grid via an existing overhead line to the north of the site. Connection into a nearby existing Substation was proposed, however following ecological concerns this has since been amended.

Site access would be from the A228, via an existing site access point to Malmaynes Hall Farm and also an existing access point off Hoopers Lane. During construction, on site access tracks would be approximately 3 metres wide and would be placed to avoid known ground hazards, environmental constraints and steep gradients. The proposed new on site track would not be extensive, and would link the site access point to the various fields and buildings that make up the proposed Solar Park. The total length of the new on site access track is approximately 80 metres.

A permanent 2 metre to 3 metre tall security fence would be installed (behind an existing on site hedgerow), with an access gate at the point of access, to ensure there are no unauthorised access to the proposed Solar Park. Security cameras would also be installed on the top of some of the fence posts and would face towards the site to monitor unauthorised on site activity.

The application has been accompanied by an Environmental Statement.

Relevant Planning History

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| MC/13/2508 | Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) Regulations 2011 - request for a scoping opinion to inform an Environmental Statement to accompany an application for the construction of a solar park EIA required, 4 November 2013 |
| MC/13/2290 | Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) Regulations 2011 - request for a screening opinion as to whether an Environmental Impact Assessment is necessary for the construction of a solar park EIA required, 2 October 2013 |

Representations

The application has been advertised on site and in the press and by individual neighbour notification to the owners and occupiers of neighbouring properties. Kent County Archaeology, Kent County Ecology, Southern Water, St Mary Hoo Parish Council, Stoke Parish Council, Dickens Country Protection Society, The Environment Agency, Natural England and Lower Medway Drainage Board have been consulted on the proposal.

3 letters of representation have been received raising the following objections (some photos were enclosed):-

- Though the site does not currently form part of any recognised environmental designation, it is nevertheless worthy of preservation as a valuable asset of rural Medway.
- If the application is approved, this would not only represent an enormous visual intrusion into the amenity of the countryside for dozens of households in St Mary Hoo and Upper Stoke but also for thousands of visitors annually.
- The sheer size of the proposed development is the equivalent of 42 full-sized football pitches.
- Concern that the development would expand further to the north in the future. Similar proposals in Wales opened the floodgates for expansion following initial consent which further impacted upon visual landscape.
- Part of the submitted site area was not demonstrated on plans circulated by the applicant to members of the public both by post and via the exhibition.
- Reference to UK Department of Energy and Climate Change Consultation Document published in May 2014, which emphasises then need to focus solar installations mounted on roof tops of large industrial and agricultural buildings as opposed to arable farmland.
- An example of rooftop mounting in the recently equipped large agricultural shed known as the fruit pack house site Flanders Farm.
- Recent press and journal publications have been less supportive of solar farm activity.
- The applicant does not accept that Natural England Land Classification of the site as Grade 1 agricultural, pointing out that a survey commissioned by the applicant assessed it as, predominantly Grade 3a and 3b, defined as good, moderate, with pockets of the lesser grade 4 comprising 5.3%. Large parts of the site around the existing reservoir regularly produce healthy cereal and cabbage crops with not a grazing sheep to be seen. Potatoes grown directly adjacent to the site of the same classification have been known to be retailed at Tesco.
- The land has successfully be cultivated for generations, and continues to be to the present day.
- Applicant has not adhered to best practice guidance in terms of 'focusing on non-agricultural land or land which is of lower agricultural quality'.
- Though much of the south side of the site is visible from a major highway (A228), the applicant has omitted to proposed tree screening in close proximity to the site

on this side, where it might be effective and still be far enough away to avoid shading the solar panels. Instead screening is proposed immediately adjacent to the A228.

- The proposed screening is not adequate to shield the PVs from view.
- The proposed avenue of trees immediately lining the A228 would also shield attractive fields leading to the church from view. These are an attractive feature on the landscape.
- The proposed green living screening appears immature and sparse, requiring many years to become fit for purpose.
- No evidence of landscape/ecology management through the lifetime of the development.
- Lack of commitment to proper security provision around the perimeter of the site.
- It is understood that more electricity power is needed and the idea of solar panels is very good but at the same time, the proposal in this location will compromise space and views for neighbours.
- Have alternative sites been considered?
- The development will considerably alter the tranquil vista from the back of neighbouring properties. Due to the height of the proposed panels, views of Hoo Church will also be compromised.
- The proposal is neither sympathetic to the surrounding area, nor does it maintain the countryside feeling.

Environment Agency has raised no objection the proposed Solar Park and are satisfied with the surface water drainage proposals included within the submitted Flood Risk Assessment.

Dickens Country Protection Society considers that the suggestions that the land will remain in agricultural use in the shadow of the panels are misleading. The vegetation is unlikely to recover. 48.5% of the site is Grade 3 agricultural land which is important to preserve for agricultural use. National Planning Guidance states that the sequential approach should be adopted when considering development, and development should take place on the lower grade land first. In these circumstances the Society would suggest that the size of the installation should be reduced to exclude Grade 3 land. The society would prefer to see this type of installation located on previously developed industrial land.

Southern Water advises that the Flood Risk Assessment makes reference to drainage using Sustainable Urban Drainage Systems (SUDs). Under current legislation and guidance SUDs rely upon facilities which are not adoptable by sewerage undertakers. The applicant will therefore need to ensure that arrangements exist for long term maintenance of the SUDs facilities. It is critical that the effectiveness of these systems is maintained in perpetuity. Good management will avoid flooding from the proposed surface water system, which may result in the inundation of the foul sewerage system. Thus, where a SUDs scheme is to be implemented, the drainage details submitted to the Local Planning Authority should: Specify the responsibilities of each party for the implementation of the SUDs Scheme; specify a timetable for implementation; provide a management and maintenance plan for the lifetime of the development. The application details for this development indicate that the proposed means of surface water drainage for the site is via a water course, and therefore comments should be sought via the Council's

Internal Environmental Health Team.

Lower Medway Drainage Board has advised that whilst the planning proposal is outside of the Lower Medway Internal Drainage Board's district, it has the potential to increase downstream flood risk. The applicant appears to have considered the risk of channeling by the inclusion of swales, which is welcomed. However, the applicant has also assumed that the runoff from the solar panels will be no greater than existing, other than allowing for the panel supports, and percolation tests have not been carried out. It is considered likely that runoff rates will be increased from the panels, and access tracks, and without a more detailed analysis of the site (including Percolation rates) it is difficult to understand how the swales will function (if they become filled with water and overtop, the risk of channeling and soil erosion will be increased, along with increased runoff rates). Although not opposed to the principle of the development it is requested, should the Council be minded to approved this application, that details of drainage be made subject to an appropriate planning condition requiring runoff to be restricted to no more than that of the Greenfield site (for a range of rainfall events up to the 1 in 100 year +CC).

Natural England has advised that no objection is raised with regards the impacts on statutory nature conservation sites and consideration should be given to protected species, local sites, biodiversity and landscape enhancements, some of which is covered in their standing advice.

Stoke Parish Council has raised no objection to the application.

Development Plan

The Development Plan for the area comprises the Medway Local Plan 2003. The policies referred to within this document and used in the processing of this application have been assessed against the National Planning Policy Framework 2012 and are considered to conform. The Medway Landscape Character Assessment 2011 is also a material consideration.

Planning Appraisal

Principle and Agricultural Land

Local Plan Policy CF11 advises that renewable energy schemes for the generation and consumption of electricity will be permitted when the location, scale and design of the apparatus and associated infrastructure are not detrimental to nature conservation or landscape concerns and present no significant loss of residential and countryside amenity. One of the main sustainable advantages of using renewable energy is its contribution to limiting emissions of greenhouse gases. A significant environmental benefit of the proposed solar park is that it would help to displace electricity currently generated by fossil-fuel fired power plants. Solar energy itself produces no CO₂ or gaseous emissions (Over the course of a year, it is estimated that the proposed solar park could provide approximately 2,689 households with renewable energy, and avoid emission of approximately 4,477 to 10, 600 tonnes of CO₂). As with this particular proposal, there are often considerable environmental constraints on renewable energy schemes that will need to be taken

into account (visual amenity, landscape etc - discussed below in detail).

The proposal is for major development in the open countryside (the countryside is defined as land outside the urban and rural settlement boundaries as defined on the proposals map), on agricultural land confirmed at Grades 3a, 3b and Grade 4 quality. As such the site is considered to be a mix of good quality, moderate quality and poor quality agricultural land, most of which lies outside *'the best and most versatile'* category. The NPPF states (para. 112) that *'Local 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 higher quality'*. The government has also reaffirmed the importance of protecting our soils and the services they provide in the Natural Environment White Paper *'The Natural Choice: securing the value of nature (June 2011)'*, including the protection of best and most versatile agricultural land (paragraph 2.35).

Furthermore, as a valuable resource, the countryside needs to be protected for its own sake. The loss of countryside to encroaching urbanising development must therefore be resisted. Nevertheless, the countryside supports a range of activities and some necessary change is to be expected as activities develop or decline. Policy BNE25 of the Local Plan refers to the development in the countryside, saying that it will only be permitted in certain specified circumstances, these include:

- i) It maintains, and wherever possible, enhances, the character, amenity and functioning of the countryside;
- ii) On a site allocated for that use; or
- iii) Development essentially demanding a countryside location (such as agriculture, forestry, outdoor or informal recreation); or
- iv) A re-use or adaptation of an existing building that is, and would continue to be, in keeping with its surroundings; or
- v) A re-use or redevelopment of the existing built up area of a redundant institutional complex or other developed land on lawful use; or
- vi) A rebuilding or, or modest extension or annex to, a dwelling; or
- vii) A public or institutional use for which the countryside location is justified and which does not result in volumes of traffic that would damage the rural amenity.

Taking into account the NPPF the proposal could be described as a significant development as it is proposed to limit, for at least 25 years, the productivity and range, of crops that can be grown on this site of over 26 hectares of agricultural land in the open countryside. It is noted under paragraph 98 of the NPPF that applications for energy development are not required to demonstrate the need for renewable energy and as such we are able to assume the need in this instance.

A recent June 2014 appeal decision, is drawn to Members' attention, in relation to a proposed solar park near Ipswich (ref APP/D3505/A/13/2204846) where the inspector drew particular attention to the lack of evidence of the consideration of alternative sites on brownfield, non-agricultural or lower quality agricultural land. Specifically *'whether it has been demonstrated that development of agricultural land is necessary and, if so, whether it has been shown that land of poorer agricultural*

quality has been chosen in preference to higher quality land'. The applicant has provided a site selection study, undertaken prior to submission of this application, which demonstrates that the development of agricultural land was necessary to facilitate the proposed development. Seven brownfield/non-agricultural sites were considered and all found to be unsuitable due to planning designations/existing uses that are not consistent with the development of a solar park. Reasonable attempts were made to identify land that was solely either Grade 4 or 5, non-agricultural or urban but non was considered to be suitable.

Grades 1, 2 and 3a are higher quality land than Grades 3b, 4 and 5, which is moderate to very poor quality. Land grades 1 to 3a is land which is '*most flexible, productive and efficient in response to inputs which can best deliver future crops for food and non food uses such as biomass, fibres and pharmaceuticals*' (Annex 2 NPPF) and as such is an important natural resource. The submitted Agricultural Land Classification Survey (ALC) (forming part of the Applicant's Environmental Statement) for the Malmaynes Hall application site indicates that due to either wetness class combined with mainly clayey soil type, or droughtiness (or both - the characteristics are not mutually exclusive) the land has been mapped in detail comprising just under 50% Grade 3a (good quality) and just over 50% Grade 3b (moderate) or 4 (poor). Technically 3a is still within the '*best and most versatile*' category but as can be seen in the study, the Grade 3a land is not an easily useable single block, but is spread out in a fairly narrow, curving band between areas of Grade 3b and 4. A variable 'pattern' of this sort is recognised in the ALC Grading Guidelines as a potential limitation in itself, as it can complicate and constrain soil management and cropping decisions or result in uneven crop growth, maturity and quality. Overall therefore, having regard to this data, it is not considered that this particular solar farm proposal need be regarded as such a significant development of agricultural land that land of poorer ALC quality (than the proposed site) ought to be sought instead.

The NPPF itself, under paragraph 112, continues that as a Planning Authority we should '*seek to use areas of poorer quality land in preference to that of higher quality*'. In this regard the proposed development site complies with these national requirements. In addition, National Planning Policy Guidance (PPG) advises that renewable energy developments should be acceptable for their proposed location. It is important to site systems (in this case photovoltaics) in situations where they can collect the most energy from the sun; there is also a need for sufficient area of solar modules to produce the required energy output from the system. In this case, Malmaynes Farm provides sufficient land to allow for a 12MW solar park. The effect on a protected area is also of importance, and visual impact will be discussed below. However, the application site is not designated as a protected area, AONB or Ramsar. In this instance the proposal is considered acceptable in principle under the provisions of Local Plan Policy CF11.

It is considered that adequate demonstration has been made that development of agricultural land is necessary and that land of poorer agricultural quality has been chosen in preference to higher quality land. Furthermore, it is considered following the submission of the '*Site Selection and Consideration of Alternative Sites*' survey, that there are no reasonably available alternative sites in the search area that are solely on lower grade agricultural land than the Malmaynes Hall site. The loss of this

agricultural land, given that it does not represent best most versatile land, is not considered to have a detrimental impact on the overall productivity and net worth in agricultural terms as the crop produced would not be of particular high value. In this case the proposal is considered to adhere to the requirements of Local Plan Policies BNE25 (vii) and the aforementioned elements of the NPPF.

Likewise, solar farms do not involve irreversible physical change to all the land. Whilst the proposal includes for various access roads, which would split up the area concerned, a control building and inverter cabins, as well as the solar panels themselves, compared to other power generation technologies, Solar Parks can be easily and economically decommissioned and removed at the end of their economic life. It is proposed that following decommissioning and removal, the site would be restored close to its original condition such that there would be little trace that a solar park had existed. A condition is therefore recommended to ensure that the land be restored to its previous condition and, if appropriate, back into agricultural use once more. Though after 25 years the wildlife habitat established may wish to be kept instead of removed to make way for crop growth. A condition is also recommended restricting the use of the site as a solar park for the proposed 25 years and taking into account the three years implementation of consent, a total of 28 years from the date of consent is recommended.

In summary, the proposal is considered acceptable in principle under the provisions of Local Plan Policies BNE25 and CF11 and the requirements set out in the National Planning Policy Framework.

Landscape and Visual Impacts

Local Plan Policy BNE1 advises that the design of development should be appropriate in relation to the character, appearance and functioning of the built and natural environment by: (i) being satisfactory in terms of use, scale, mass, proportion, details, materials, layout and siting; and (ii) respecting the scale, appearance and location of buildings, spaces and the visual amenity of the surrounding area. Large scale solar PV array developments within the countryside are more likely to be considered acceptable if they are in less exposed locations - e.g. sited on the margins of major infrastructure and/or industrial areas or within predominantly flat and well contained sites, with limited public access and well screened natural topography and/or vegetation. Proposals should not cause undue impact on nearby domestic properties or roads. The countryside surrounding Medway urban areas is under considerable pressure from ad hoc random and poorly sited development that is tending to erode, fragment and dissipate rural character, reduce openness and lead towards settlement coalescence. Large scale PV solar farms are only likely to be considered acceptable within the countryside where they respect and reinforce landscape character, including natural landform, scale and pattern, in line with policies BNE25 and CF11 of the Local Plan. Proposals should be located within land areas that equate to typical field/plot sizes, and are suited to the uniformity of a PV array.

The proposed PV panels would be placed in rows across the land, spaced to avoid overshadowing, and would be at a height of no more than 3.5 metres from the ground to the top of the PV Panel, fixed and orientated between 20° and 35°. The

only structures that would be required would be the Inverter/Transformer Cabins (one per MW), which would be approximately 8.5 metres in length by 2.5 metres in width, and 3 metres in height, together with the control building, which would be approximately 5 metres in length by 5 metres in width, and 4.5 metres in height. As part of the environmental statement, a Landscape and Visual Impact Assessment (LVIA) was undertaken, which included 12 photoview and 8 photomontages, selected from 12 views of the site. The photographs were taken at a time when there was temporary plastic mulch sheeting covering the fields in the vicinity of the application site. This sheeting, which is highly reflective, forms the dominant adverse feature within most of the views. The impact of this sheeting is considered to be far worse than the PV Panels however it is not permanent.

On analysis of the montages supplied, the development would not give rise to a strong adverse component in the landscape. The most prominent middle distance views are those from the south, and the most prominent near distant views would be from the east side of the site. The analysis that accompanies the photoviews assesses impact at three stages, at construction, at completion and after 15 years. Combined likely significance is assessed as either moderate positive or high positive. It is considered in this case that the positive visual benefits of this development are predominantly related to enhanced field boundary planting, particularly along the A228 and Hoppers Lane. It is therefore suggested that a low positive, neutral and minor adverse effect would be a more accurate assessment, depending on which view is under consideration. However, it is considered that this project has taken due consideration of visual receptors such that there are no significant adverse impacts that would lead to refusal.

Landscape effects are assessed at three stages, during construction, at completion and after 15 years. Combined likely significance is assessed as high positive in most cases. Positive features are listed as replacement of grass with windflowers and sheep grazing; restoration of field pattern and intimate landscape scale; erosion arrested and biodiversity enhanced. The value of the area is described as off the beaten track / locally enjoyed. The Medway Landscape Character Assessment includes this site at the eastern end of the Hoo Peninsula Farmland character area stretching across the centre of the Hoo Peninsula from Cliffe Woods in the west to Allhallows in the east. This character area is described as having a weak landscape structure and there is a guideline to strengthen landscape structure with new hedgerows. There is also a guideline to protect separation, rural character and openness of countryside between villages, including the area between Stoke and High Halstow.

The proposed location for the solar panels has taken advantage of the gently undulating topography and sited the development within the shallow valley and below the elevated reservoir (central within the site) to enable moderately open views from publicly accessible locations, over the site to the broader landscape. However the effect on the landscape also needs to consider the additional landscaping which has been proposed as mitigation. The overall development would lead to a loss of openness and rural character though there would be some benefit through the provision of new hedgerows, which would also be in line with the Medway Landscape Character Assessment. Although these are offered primarily as mitigation to reduce the adverse visual effects of the development.

The layout of the solar panels would be in a regular grid form, with horizontal rows orientated to the south reaching a maximum height of 3.5 metres and deer fencing at a height of 2.5 metres. The proposed and existing hedges would therefore be managed at a height of a minimum of 3.5 metres in height to maximise screening. The proposed fencing with screen planting could be considered an untypical feature of the historic landscape character of this area, which is generally characterised by low hedgerows and open ditched boundaries. The applicant has advised that the openness of this part of the landscape in contrast to the more open marsh land areas on the shore of the peninsular is as a result of Dutch Elm Disease to some extent and that the proposals would help establish a more historic setting than that of the present day. Remnant elm exist along the hedgelines to be replanted with other native species and forms of elm that are resistant to the disease. This would reinforce and restore the landscape pattern and augment biodiversity. The development would impact on the rural character and openness of the area however it is considered that the planting scheme has been carefully designed to ensure a balance between the provision of screening and a desire to ensure that the openness of the landscape is not lost. It should also be noted that the site would have a 25 year lifespan and therefore there is the option for reversibility.

Cumulative landscape and visual effects have been considered for a list of sites in the surrounding area. Each site was considered in turn and cumulative landscape effects were considered acceptable in each case. A general theme that emerged within this assessment (eg. when considering Lapel Bank and Perry's Farm Wind Farms), is that the planting around the Solar Park would strengthen the landscape and give greater landscape resilience and capacity to absorb neighbouring developments, enhancing the capacity of the Hoo Peninsula farmed landscape to accept developments such as these. This could lead to and support the case for introducing further 'industrial style' Solar Park schemes within areas of open countryside (a concerns raised by some local residents in the area), potentially adjacent to this application site. As a result, the continued erosion of open countryside on a larger scale and across other parts of the Hoo Peninsula may become more difficult to resist. Clearly it cannot be predicted that any further proposals for solar parks in the area would be forthcoming, but any future project would be the subject of scrutiny to ensure that the proposals did not give rise to inappropriate landscape impacts, or for that matter inappropriate cumulative impacts. It should be noted that the grid company have indicated that the last capacity in the lower voltage network would be secured by the Malmaynes Hall project and the cost of connection for subsequent projects would be commercially prohibitive.

In conclusion, this development, by its very nature, would have an impact on the landscape. It is regrettable that a brownfield or industrial sites has not been proposed for the development, however visual effects would be mitigated by extensive hedgerow planting to the site and perimeter boundaries (although restricted to those boundaries within the land ownership of the applicant). PV Cell technology is generally uncomplicated and is relatively unobtrusive when compared to other developments, such as wind farms, which can be highly visible over many miles. In terms of the visual impact of glint and glare from the proposed PV Panels, a detailed study has been provided, which concludes that no potentially significant glint effects are predicted, particularly when intervening vegetation and buildings are

taken into account. As such, on balance, the scheme is considered to accord with policies BNE1, BNE25, BNE42, BNE43 and CF11 of the Medway Local Plan 2003 and the Medway Landscape Character Assessment.

Residential Amenity

The solar park would be located on land to the south of Hoppers Lane, approximately 0.85km west of Lower Stoke and approximately 8km north east of Strood. There are a small number scattered houses in the vicinity of the application site. The closest of these are those residential properties at Orchard House (approximately 270 metres to the east) and those residential properties along Ratcliffe Highway (near Norland Cottage, approximately 370 metres to the north west). The main implications for residential amenity would be the impact of any sun glare from the solar panels, any noise or disturbance (during construction and when operational), and impact upon outlook.

A detailed study has been provided in terms of the potential glint and glare from the proposed PV Panels, which concludes that there are no potentially significant glint effects predicted. The review considered the potential effects (if any) on local properties, road users and other such receptors. Glint is defined as the continuous source of brightness, which is not the direct reflection of the sun but the reflection of a bright sky. Glint could be considered as having an impact on the surrounding area, while glare is considered to defuse and so weak as to have no significant affect on any receptor. There are no objections to the scheme in this regard. It is noted that representation has been made from occupants of nearby dwellings regarding outlook. It is considered that the local topography and significant vegetation between the site and those properties, along side the distance between the site and those properties would greatly minimise the potential for any serious visual harm to any nearby dwellings.

In terms of noise and disturbance, once operational the panels would be fixed with no moving parts, and no noise would be emitted from the arrays. Similarly the supporting electrical equipment, including inverters, would not emit noise above ambient levels. Construction noise would primarily be associated with works on site and traffic, which would be for a limited period only and some distance from noise sensitive receptors. As such it would not cause a significant impact. This would be the case for the decommissioning stage as well. A condition restricting hours of construction is recommended, in line with the hours proposed by the applicant (Monday to Friday 0800 to 1800 and Saturday 0800 to 1300). In addition a condition is also recommended to require a Construction Environmental Management Plan (CEMP).

Overall it is considered that the development would not result in a detrimental impact with regards residential amenity and overall adheres to the provisions of Local Plan Policy BNE2, which seeks to the protect local and residential amenity.

Ecological Impacts

The application site is not specifically designated as being within any landscape or wildlife protected areas. However, the wildlife heritage of Medway extends beyond

the various designated nature conservation sites. These undesignated habitats can sometimes contain statutorily protected or rare wildlife species. Policy BNE39 of the Local Plan advises that development will not be permitted if statutorily protected species and/or their habitat will be harmed.

Historic data have shown that reptile and amphibian species have been recorded within the area in the recent and distant past. The applicant has advised via the submission of the Environmental Statement and Extended Phase 1 Habitat Survey that there is potential for commuting and foraging individuals to be present within the verge areas. Confirmation has also been received that the reservoir within the site is unlikely to provide suitable habitat for Great Crested Newts and no objections are raised with regards the impacts on reptiles. The applicant has provided further information during the course of the application with regard to the potential impacts to water voles and no objections are raised. Ditches would be retained, with a buffer zone of at least 6 metres to the proposed site fencing, which would have wildlife access points which would allow continued movement between on and off-site areas, reducing the potential impact of habitat fragmentation. Limited signs of badgers using the site were recorded during the survey undertaken by the applicant. To ensure the ability for badgers to move across the site is not curtailed by the perimeter fence, access points will be created. No hedgerow removal is proposed and no works would take place within 4 metres of the existing hedgerows. The cabling for the solar panels would not go through the hedgerow buffer areas and the route to the grid would be via the existing overhead line to the north of the site, rather than to the substation originally referred to in previously submitted documents. It has been reported that the verges would be retained as buffer zones and a condition is recommended to ensure that these are protected, retained, and potentially enhanced.

The ecological assessment of the site, and subsequent documentation has provided adequate assessment of the potential ecological impacts. Subject to avoidance, mitigation and enhancement measures being secured by condition no objections are raised to the proposal under the provisions set out under policies BNE6, BNE37, BNE39 and CF11 of the Medway Local Plan 2003.

Archaeological Impacts

The Hoo Peninsula is a landscape that is generally rich in archaeological remains, with known sites and find-spots dating from the Paleolithic to the twentieth century. The submitted Archaeological Desk-Based Assessment provides consideration of the site's archaeological potential. Whilst the Geophysical Survey was largely negative, evidence from similar surveys on Hoo suggests that technique is not 100% successful on the local geology and as such can downplay the potential for archaeology to be present. Previous investigations have identified archaeological features within the site and in the general vicinity. These include the presence of a pair of circular enclosures within the site as revealed by aerial photographs. Bronze Age and Iron Age pits and ditches were recorded to the south east of the site closer to the village of Middle Stoke during road improvement works. A Late Bronze Age or Early Iron Age site is also identified just to the south of the site near Malmaynes Hall Farm. Other finds from the vicinity include pits of Romano-British date. The Kent Historic Environment Record also records the site being the location of a Second

World War bombing decoy site. The assessment documents include a consideration of the impact of the scheme on the historic environment.

The proposed solar park has the potential to directly impact upon buried archaeological remains. It has been suggested that the potential for such remains to be present has been underplayed in the submission. Nevertheless, in terms of the impact of the scheme of buried archaeological remains this could be appropriately mitigated through the implementation of a programme of archaeological work. Such a programme could be secured through an appropriately worded condition. On this basis no objections are raised with regards the provisions of policy BNE21 of the Medway Local Plan 2003.

Drainage & Flood Risk

The site is situated close to an area which is considered to be at risk of surface water flooding and which has experienced flooding in the past. It is therefore prudent that the surface water regime for the site would not increase flood risk to the site or third parties. The submitted Flood Risk Assessment (FRA) states that the PV panels would be arranged in rows approximately 7 metres to 10 metres apart and would be raised above the ground on small metal struts, thus not creating an impermeable area at ground level. However, it should be noted that water would be concentrated into smaller areas for the extent of the 26.6ha and therefore the runoff regime would be different from that of the existing land. The drawings submitted within the FRA show several (seemingly unconnected) swales across the site, and there is a risk due to the underlying clay geology that this would result in water logging across the site. This may not be an issue for the site itself, but it should be ensured that the swales are large enough to contain the water to promote infiltration, which would be slow because of the underlying clay. Swales may be an acceptable measure as part of a system to manage surface water at the site but it should not be relied upon as a sole means of surface water management.

Whilst it is accepted that at ground level the extent of impermeable area is small, when considered in context with the extent of coverage, the gradient, and the likely impermeable nature of the clay beneath it would be sensible to account for a percentage increase in runoff over and above normal infiltration. This estimation might also take into account the angle of the solar panels in relation to the line of the slope. For example as a broadbrush assumption it might be assumed that the tunnels reduce normal filtration by 25% resulting in an excess runoff increase of 25%. A more effective system may include the use swales linked with existing or new ponds on site (such as at the south/south east corner) with discharge via a suitable control into the nearby ditch network. It is noted that as part of the construction and operation of the proposed Solar Park, the watercourses/drainage ditches would be controlled and maintained by the site operator to ensure the continued flow of surface water and overland flow.

In summary, some further work is required to better estimate the runoff and manage the runoff on site. However with some additional analysis and design this will be achievable and a condition is recommended to control this.

Highways

The site access would primarily be via an existing access point to the south of the site off the A228. Some electrical equipment and cabins would be brought to site along the A228, through Lower Stoke, entering the site from the north off Hoppers Lane. The total length of the proposed access track is approximately 80 metres. There are no footpaths or bridleways that cross the proposed site. The nearest public right of way is approximately 45 metres to the east at its nearest point.

During the construction traffic can be broadly split into three main categories: construction workforce movements, delivery of construction plant/equipment, and delivery of solar park plant/equipment and materials. During construction, a workforce of up to 50 personnel is expected. However, it is not expected that all personnel would be on site at the same time. Based on the use of mini-buses and car sharing, the peak would represent a maximum of 30 vehicle (i.e 60 traffic) movements per day. Construction plant/equipment would be delivered to the site on low loaders and would be delivered to the site in the first few weeks of the construction programme. Up to approximately 8 Low Loaders would be required to deliver the plant/equipment (same amount of removal of equipment/plant). A small crane, used to unload the inverters and place them on their foundations, would be delivered by Low Loader as well. 5 HGV movements would be required for the delivery of aggregate for the construction of the access track/permanent access road. If available, aggregate would be sourced from local suppliers to minimise traffic generation. In the creation of the foundations for inverters and control building, up to approximately 15 concrete mixer trucks would be required. The delivery of the PV Panels would require, it is anticipated, up to 66 HGVs (with low loader) and an additional 60 HGVs to deliver the support structures. The prefabricated inverter and transformer would be delivered by up to 25 HGVs. 6 HGVs would be required for the delivery of cabling and switchgear and housing. Security fencing and other items would require a further 30 trucks. To measure and monitor traffic a requirement is recommended to be included within the Construction Environmental Management Plan condition.

In terms of traffic generated as a result of the operation of the Solar Park, the site would be visited to ensure the equipment was working correctly. These visits would likely be limited and infrequent (approximately twice a month) and therefore require few traffic movements. Vehicles would park on site and would not block roads in the vicinity of the proposed site. During decommissioning, similar traffic movements to construction would be expected.

The proposed Solar Park would not be open to the general public and would be maintained by a team of engineers who would visit the site as required. Potential impacts in the long term are not considered to be significant. It is not considered that the development would impact significantly on highway safety or convenience. It is however recognised that there would be some disturbance during the construction and decommissioning phase. On this basis no objections are raised with regards highway safety and the provisions of policies T1 and T13 of the Medway Local Plan 2003.

Other Matters

Concern has been raised via representation to the planning application with regard to site safety. The submission advises that warning signs would be installed to alert the public of the danger of entering the Inverter/Transformer cabins and the Control Building. It is also proposed that a security fence would be installed behind existing on site hedgerows, with a gate at the point of access, to ensure there is no unauthorised access to the site. In addition, the proposed Solar Park site may be continuously monitored by CCTV cameras. On this basis no objections are raised with regards policy BNE8 of the Medway Local Plan 2003 but conditions are recommended to ensure that details of the fencing and CCTV provision, including their location, are agreed.

Section 9 of the submitted Environmental Statement details the site history, information on the geology and hydrogeology at the site. No sources of contamination have been identified which would impact on the proposed development. As such no objections are raised with regards the provisions of policy BNE23 of the Medway Local Plan 2003 but a condition is recommended to ensure that if contamination is found then it is dealt with in an appropriate way.

Compared to other power generation technologies, Solar Parks can easily be decommissioned and removed at the end of their economic life. Following decommissioning and removal, the site can then be restored close to its original condition such that there would be little trace of the solar park had ever existed. It is anticipated that it could take as little as 6 weeks to decommission the proposed solar park after 25 years. Decommissioning would take account of the latest environmental legislation at the time. Notice would be given to the Local Planning Authority in advance of the commencement of the decommissioning work, and any necessary licenses, consents/permits/permissions would be acquired. In addition, a decommissioning plan would be developed, the submission of which can be secured by condition to the decision notice should planning permission be forthcoming.

Local Finance Considerations

There are no local finance considerations as a result of this proposal.

Conclusions and Reasons for Approval

The proposed development to create energy through renewable methods is supported. The site consists of a mixture of agricultural land qualities and the best and most versatile land would not be affected in this case. The proposal would change the rural character of the area by virtue of an industrial process being introduced to a countryside site and whilst the landscape mitigation proposed would enclose the openness currently seen in the area the landscape proposal carefully balances mitigation and impact. It should also be noted that the natural topography of the site would also assist in reducing its landscape impact. There would be no detrimental impacts in terms of residential amenity and matters such as ecology, archaeology and drainage matters can be effectively addressed via condition. Overall the proposal is considered to accord with the provisions of the Development Plan and the aforementioned policies.

The application would normally be considered under Officers delegated powers but is being reported to Planning Committee due to the number of letters of representation received expressing a view contrary to the officers recommendation.

Background Papers

The relevant background papers relating to the individual applications comprise: the applications and all supporting documentation submitted therewith; and items identified in any Relevant History and Representations section within the report.

Any information referred to is available for inspection in the Planning Offices of Medway Council at Gun Wharf, Dock Road, Chatham ME4 4TR and here <http://publicaccess.medway.gov.uk/online-applications/>