

MAIN CASE

Proposal: The construction of a Solar Farm of 20MW capacity, to include PV Panels and Supports, transformers / invertors, monitoring equipment, security fencing / cameras, landscaping and ancillary works

Location: Land South West Of Stow Bridge Farm Newmarket Road
Stretham Cambridgeshire

Applicant: Mr I C & D Palmer / F C Palmer & Sons

Agent: Sulis Environmental Ltd

Reference No: 12/00732/ESF

Case Officer: Sue Finlayson

Parish: Stretham
Ward: Stretham
Ward Councillor/s: Councillor Bill Hunt
Councillor Charles Roberts

Date Received: 24 August 2012 Expiry Date: 14 December 2012

[M181]

1.0 **EXECUTIVE SUMMARY**

- 1.1 This application seeks full planning permission for the construction of a solar energy farm capable of generating up to 20 MW of electricity on land forming part of Stowbridge Farm, 2.4kms south of Stretham village.
- 1.2 It is accompanied by an Environmental Statement which describes the proposal and provides an assessment of the likely significant environmental effects that may arise from the construction and operation of the facility. This proposal is of a significant scale, for a form of development that could be of wider public interest, and as such it has been brought before the Planning Committee for determination.
- 1.3 The main issues for consideration are:
- The principle of development in the countryside and the policy issues surrounding renewable energy development;
 - The impact on visual amenity and the character of the countryside;
 - The impact on nearby heritage assets;
 - The impact on ecology and biodiversity;
 - The possible loss of agricultural land;
 - Highways issues; and

- Flood risk and drainage issues.

1.4 Due to the nature of the development it is considered that a countryside location is appropriate for this proposal and that on balance there would be no significant adverse effects on visual amenity or the local landscape character. The development will make an important contribution to the reduction of carbon dioxide emissions and would raise no adverse effects on highway safety, ecology and protected species, flood risk or drainage. It would also result in significant biodiversity enhancements through a management regime that would encourage a wider range of flora and fauna to the site. The application is therefore recommended for **APPROVAL** subject to the conditions attached to this report.

2.0 **THE APPLICATION**

2.1 The application seeks planning approval for the construction of a solar energy farm generating up to 20MW of electricity. Electricity would be generated by way of capturing and converting solar rays, via semi-conductors, into direct current electricity, for export to the National Grid.

2.2 The proposed development would be based around a series of parallel rows of Photovoltaic (PV) Panels, connected by cabling to invertors, with direct connection to the National Grid (on-site). The PV Array would require an area of approximately 25.25 hectares (the site area is 32.75 hectares). Each row would be approximately 0.2 metres above ground level at its lowest point and 2.54 metres above ground level at its highest point. Invertors would be sited at requisite points around the site to facilitate the efficient collection and conversion of solar rays to electricity, prior to the electricity's export to the National Grid (via existing power cables that cross the site).

2.3 In order to reflect the shape of the site, field boundaries define the layout of the development. Three adjoining fields form the site, with two drainage channels dividing them. Cable routing would be subterranean, with required ditch crossings via existing ditch crossing structures. The development would also include the following ancillary / infrastructure elements:

- PV panel array (sited in a parallel formation facing south – 6.5 metres spacing between each row);
- Grid Connection (substation at base of existing 33KV cable system that crosses the site);
- Invertors (on a linked electrical circuit);
- 2m high wire mesh security fence (to enclose the proposed development);
- Closed Circuit Television Cameras (CCTV) (along the perimeter fence line – as detailed above);
- Soft landscape planting to the boundary of the site (species to be of local provenance)

2.4 This planning application is supported by a number of plans and reports: Location Plan; Site Plan; PV Panel / Equipment Array Plan (including landscape proposals); PV Panel /Supporting Structure cross sections; Design and Access Statement; Supporting Planning Statement; Statement of Community Involvement; and Renewable Energy Statement. It is also accompanied by a formal Environmental Statement, which includes: Non-Technical Summary; Landscape Visual Impact Assessment; Heritage /

Archaeological Assessment; Flood Risk Assessment; Agricultural Assessment; Detail of Security Measures (fencing / cameras); Construction Management Statement (EMP) / Access Details; Phase I Habitat Survey; and Heritage / Archaeological Assessment. Additional information has also been received to clarify certain ecology and archaeological queries raised.

3.0 **THE APPLICANT'S CASE**

3.1 The applicants case has been put forward in the supporting Planning Statement, which can be found on the planning file and can also viewed online via public access <http://pa.eastcambs.gov.uk/online-applications>

3.2 **Applicant's supporting statement:** The Estate currently farms a range of produce including Wheat, Potatoes and Sugarbeet, as well as traditional arable rotation. In addition, the Estate also grows Celery, Lettuce, Leeks, Carrots and Beetroot. These crops are more specialised and require greater investment and an increased level of labour when compared to the other arable crops. The Estate currently employs 35 staff cross all of the crops and it is our aim to increase the area of the specialist crops grown on an annual basis.

The addition of the Solar Farm will provide us with the following important benefits and opportunities for our business:

- An additional income stream to the business, from the generation of Electricity, which is separate from the current business income generated by crop sales;
- 3 additional full time jobs, required to manage and maintain the site and its equipment (this being an opportunity to diversify farm activity to maintain long-term employment for existing operatives, and future employment opportunities on the Estate);
- Opportunities to crop the area between the panels, with high quality haylage and grazing;
- Afford us an opportunity to see how the land on the site compares to surrounding fields over the 25 year period that it will be left to grass, in terms of erosion and shrinkage, when likened to the adjacent fields which will continue to be farmed conventionally;
- Provide landscaping around the site which will create hedgerows and grass margins. These will be planted with traditional species, such as hawthorn for the hedges and wild flower mixes for the margins. This will provide an excellent habitat for over winter nesting birds and fruit from the hedges, which in turn will provide feeding opportunities for birds, small mammals and insects, which will improve the biodiversity of our farm (so result in ecological enhancements that respects the surrounds yet creates improved environments for a variety of species);
- As a business we are large consumers of energy, and we view the proposed solar farm to be the most effective means of sustainable renewable energy creation. Once the system is in place it will be productive for 25 years, continuing to generate renewable energy. We can continue to farm the land between the panels and when the site is no longer required, the panels and infrastructure can be removed (so retain high quality agricultural land with no lasting effects that could impact on its ability to be as productive in the future as it is now).

As well as the direct benefits to the farm and its on-going operation, the development would also deliver:

- 20MW of renewable energy per year (in accordance with Government and Local Policy / Guidance) for the wider electricity market;
- Afford opportunities that would contribute to initiatives that help improve local community facilities;
- Have a negligible impact on potential subterranean archaeological artefacts as the nature of regular and deep sub soiling (Deep Ploughing) on site, to depths of 1.5m would have damaged and truncated any remains (see Further Information / Clarification – Formal Submission Ref: FIC/SBF/01a). The cessation of deep (1.5m) sub soiling (Deep Ploughing), which would be a direct result of the proposed development, would prevent any further degradation of potential buried remains;
- The minimal intrusion into the land will ensure unknown items of archaeological interest remain in-situ and unaffected.

The site has been identified as a suitable location for the delivery of renewable energy for the following, principle, reasons:

- The site is flat and has the requisite southerly aspect to ensure maximum delivery of renewable energy to the national grid (so improving the UK's self-sustainability in energy production and use);
- The site is available for development so delivery of the benefits listed below can be assured;
- The site and development can be sufficiently mitigated to ensure negligible visual effect to neighbouring users;
- The site is in a location that allows adequate connection to the grid with negligible off site works (i.e., no cross-country cable routing etc);
- The site has good access and hard standing to the site, so negating off site impacts from construction traffic;
- The scale of the development, construction process and operation, with the known character of the surrounding area and associated constraints were all considered as part of the site selection. The development and its design / operation will ensure the current benefits the site has for biodiversity, economic potential and historic value will be retained (and enhanced).

All the aforementioned elements, as detailed in the Planning Application and Environmental Statement (available to view via www.eastcambs.gov.uk), indicate the site selection and the development accord with delivery requirements, energy policy and national and local planning policy and would ensure the continued and future productivity of the Estate.

4.0 **THE SITE AND ITS ENVIRONMENT**

- 4.1 The site is located on land to the south of the River Great Ouse and to the west of Cross Drove, approximately 2.4 km south of Stretham, Cambridgeshire. The site is currently in agricultural use and is comprised of three fields with two drainage channels separating them. Access to Cross Drove and the site is via existing Estate roads to the A1123 to the east. The site is 32.75 hectares in area and is flat. To the north is the River Great Ouse and agricultural land. To the east are agricultural fields. To the south is a purpose built 'farm supply' reservoir, the banks of which are approximately 3

metres high and estate buildings, with Chittering Farm beyond, and to the west are drainage channels and agricultural land. On the southern side of the site are agricultural sheds. In addition, a 33 kilovolt (KV) power line passes across the site from east to west at the northern end of the site. The site is flat, as is the surrounding area, but falls slightly from east to west.

4.2 The site is designated in planning terms as in the countryside. It is within Flood Zone 3 and in an area of groundwater vulnerability. It is also within 2.1kms of the Cam Washes SSSI and the Kingfisher's Bridge Wetland County Wildlife site is 2.8km to the north east. The agricultural land specification defines the land as Grade 1. The site is also relatively close to the Scheduled Monument known as Stretham Pumping Engine which is also listed Grade II*, a further Scheduled Monument known as Tiled House Farm Roman Villa and Greenways Cottage, listed Grade II. These are sited to the north east of the site.

4.3 The nearest residential properties are Chittering Farm to the immediate south of the site and those at Green End / Cross Drove approximately 350 metres to the north east. Existing hedgerows, river embankments (flood defences) and vegetation interrupt the view to the site from the properties to the north east. The view to the site from the properties to the South is relatively uninterrupted.

5.0 **PLANNING HISTORY**

5.1 None relevant.

6.0 **REPLIES TO CONSULTATIONS**

6.1 Site notices posted at entrance to site on A1123, on signpost close to Lazy Otter public house, and on telegraph pole in front of houses adjacent to the Pumping Engine. In addition 71 properties were notified by letter. No replies were received.

6.2 Local Ward Members:

Cllr W Hunt: I agree with the views of Stretham PC and support the application.

Cllr C Roberts: The applicant has conducted thorough pre-application consultation with interested parties, including the PC. The PC wants to encourage provision of low impact renewable energy and supports solar energy in general and on this application site. As District Councillor for the ward I believe the proposal offers substantial benefit for the community, providing not just a sustainable energy source, but jobs for local people during construction and afterwards. The site is ideally located and with the appropriate screening as proposed it will have minimal adverse impact on the surroundings. I fully support this proposal and encourage the planning committee to give approval.

6.3 Stretham Parish Council: Support the application.

6.4 Environmental Health:

In respect of contamination – The submitted reports have been considered. The end use would not be particularly sensitive to land contamination. With the information provided we do not need any further information to identify land/air contamination risks. There may be a risk of run-off water creating pathways to the aquifer, but this is a matter for the Environment Agency. No contamination conditions are required.

In respect of noise and light pollution: Issues raised in respect of glare and potential impact on neighbouring residential properties. Details required of noise generated by machinery and plant especially from the invertors. As background noise levels will be low, especially at night, confirmation of noise levels is important. Construction hours should be limited to 8-18:00 Monday to Friday and 8-13:00 on Saturdays, no working on Sundays or Bank Holidays to lessen impact on nearby residents.

Comments following receipt of further information- This is considered to address concerns raised. The noise information shows that the noise level at the nearest property will be acceptable during daylight hours and the invertors will not operate at night. During the consultation phase I was concerned regarding the nearby residential property, Chittering Farm, however I have since established that this is owned by the applicant and therefore, as there are no other properties in the vicinity likely to be adversely impacted by construction operations, I no longer consider the restriction of working hours condition to be necessary.

6.5 Trees Officer: No concerns raised.

6.6 Conservation Officer: No concerns raised.

6.7 County Highways: The scheme will generate little traffic in the long term. During the construction phase temporary signage will be required to make clear where drivers should turn off the A1123. A condition is proposed to that effect.

6.8 County Archaeology: The applicant was advised in June that a desk based and physical investigation of the site would be required but a brief was not requested until October. Air photograph rectification work, a geophysical survey trial and field work to include trenching and work to characterize artefact density within the plough zone (through field walking/bucket sampling/ test pitting methods) will be required. We recommend that a planning decision is deferred until the required physical evidence has been submitted so that a proper consideration of construction impacts on any new archaeological information can be made and a mitigation strategy developed.

Response to additional archaeological report (22/11/12): No further archaeological work is required.

6.9 Countryside Access Team: Public Footpath No 16 Stretham, is adjacent to the north-west boundary of the site. It does not appear that the footpath will be affected by the proposal, as it is not used for access and therefore we have no objection. However we would insist that any hedge planting along the boundary should be planted at such a distance that it does not encroach on the footpath. We also suggest informatives to any approval in respect of treatment of the footpath during construction etc.

6.10 Natural England:

In respect of designated sites: The site is within 2kms of the Cam Washes SSSI, but given the nature and scale of the proposal Natural England is satisfied that there is not likely to be an adverse effect on this site as a result of the proposal. The SSSI does not therefore represent a constraint in determining this application.

In respect of European Protected Species: It is noted that a survey has been undertaken in support of this proposal. Natural England does not object to the proposal as it would be unlikely to affect a European Protected Species.

Other: The LPA should consider the impact on local biodiversity and geodiversity, landscape character and any local or national biodiversity priority habitats and species.

In respect of additional ecological information supplied(15/11/12): The amendments are unlikely to have any significantly different impacts on the natural environment than the original proposal.

6.11 English Heritage: Raised concerns about the impact on the setting of the Stretham Pumping Engine which is a Scheduled Monument and is a Grade II* listed building, and on the Tiled House Farm Roman Villa, which is a Scheduled Monument, and Greenways Cottage listed Grade II. They considered there might be a degree of harm to the setting of these heritage assets. However as they were not clear as to the level of harm, due to an absence of specific information in respect of those assets, they requested further information. An additional photomontage, archaeological report and summary was received from the applicant in respect of these concerns.

Response to additional information (14/11/12): The revised evidence suggests there will be some impact on the setting of the heritage assets but it is unlikely that the proposed development will impact on the relationship between the pumping station and the river. The impact will be harmful, but the harm would be less than substantial. Policy 134 of the NPPF is therefore appropriate: *“Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal...”* If the LPA consider there are sufficient public benefits, then they should feel free to determine the application in accordance with their policies.

6.12 Environment Agency:

Re land contamination: To protect the underlying aquifer and adjacent rivers from potential pollution, a condition requiring a pre-commencement risk assessment in respect of all previous uses, potential contaminants, a conceptual model indicating sources, pathways and receptors and unacceptable risks, together with a site investigation scheme to give a detailed assessment of risk to controlled waters, results of the assessment and any remediation measures needed, and a verification plan, should be imposed. Conditions are also required to preclude occupation of the site until all remedial measures are undertaken, and to deal with any unidentified contamination found during construction.

Re flood risk: Although the site is within Flood Zone 3 it is in an area benefiting from flood defences and the risk of flooding is low. The proposed surface water drainage scheme set out in the FRA is acceptable, but due to the potential for channels to form from run-off which may affect access and maintenance, French drains are recommended to help dissipate the water.

Re nature conservation: The recommendations within Ch.9 of the ES should be implemented, and additional measures taken to protect/enhance water vole/otter habitat. Ditches should therefore be protected. A condition is proposed to protect/mitigate damage to brown hares and skylarks and their habitats. *(This condition request has now been withdrawn by the EA as the development is not considered to adversely impact on these species).*

Response to additional ecology and contamination report: Awaited

6.13 Waterbeach Internal Drainage Board (WIDB): The Board considers this proposal will not have an effect on the WID District subject to the drainage of the development meeting existing green-field run off rates. The development is adjacent to the Board's

Upper Mill main Drain. No structures, fences or trees can be installed within 9m of the Drain without prior consent of the Board.

- 6.14 Architectural Liaison Officer: Security of the site is important due to prevalence of cable thefts. Fencing should be grounded to ensure no digging underneath. Further recommendations made regarding quality of fencing, its installation, depth of cable burying and wired trembler devices.

7.0 **THE PLANNING POLICY CONTEXT**

7.1 **East Cambridgeshire Core Strategy 2009**

CS1	Spatial Strategy
CS4	Employment
CS6	Environment
CS7	Infrastructure
EC5	Farm diversification
S6	Transport impact
EN1	Landscape and settlement character
EN2	Design
EN4	Renewable energy
EN5	Historic conservation
EN6	Biodiversity and geology
EN7	Flood risk

7.2 **National Planning Policy Framework 2012**

10	Meeting the challenge of climate change, flooding and coastal change
11	Conserving and enhancing the natural environment
12	Conserving and enhancing the historic environment

Core Planning Policies

7.3 National Policy Statement for Energy Oct 2010

8.0 **PLANNING COMMENTS**

- 8.1 The application site is approximately 33 ha in area, with the PV array itself covering approximately 25 ha. In view of the scale and nature of the proposal and the potential to have a significant effect on the landscape, and on the historic environment due to the proximity of designated historical assets and potential in-situ archaeology, it was determined that an Environmental Impact Assessment would be required. An Environmental Statement has therefore been submitted with the application. The Council's Scoping Opinion, given in August this year, has informed the contents of the Statement, which aims to provide an assessment of the likely significant environmental effects that may arise from the construction and operation of the facility.

- 8.2 The main issues for consideration in determining the application are:
- The principle of development in the countryside and the policy issues surrounding renewable energy development;

- The impact on visual amenity and the character of the countryside;
- The impact on nearby heritage assets;
- The impact on ecology and biodiversity;
- The possible loss of agricultural land;
- Highways issues; and
- Flood risk and drainage issues.

Provided that none of the above issues raise any adverse effects that could outweigh the significant benefits a renewable energy development of this scale would bring, the development should be supported.

- 8.3 **The principle of development in the countryside and the policy issues surrounding renewable energy development:** The application site is located outside the settlement of Stretham on land designated as countryside in the East Cambridgeshire Core Strategy 2009. Policy CS1, strictly controls new development in the countryside, restricting it to that which is essential to the efficient operation of local agricultural, horticulture, outdoor recreation and limited other uses specified within the Core Strategy. However the policy does list the provision of essential infrastructure under those exceptions. Policy CS7 also supports the provision of new infrastructure. Whilst the current proposal may not be 'infrastructure' in its truest sense, the proposal will provide renewable energy and Policy EN4 specifically encourages renewable energy proposals, unless they would have a significant adverse impact on the environment, residential amenity, protected species, or sites of national or local nature conservation, unless the adverse effects are outweighed by wider social, economic and environmental benefits.
- 8.4 The site selection process has been driven by viability, deliverability and grid connection. In this instance, the site needs to have a known level of daylight / sunlight exposure that would demonstrate viability. This area of the UK (Cambridgeshire) is considered to have the level exposure necessary to make schemes viable. Solar farms require a large expanse of land to generate power of the scale proposed. The site must be relatively level, and clear of obstructions that could introduce shadowing, and have a good link to the National Grid. Such sites within settlement boundaries are extremely limited, and, in the interests of sustainability, those sites would be better used for housing, or commercial/business use, where a close relationship to the existing settlement is important. The use of this site for a solar farm would generate minimal traffic levels following the construction phase so in terms of transport sustainability the remoteness of the site would not impact significantly in terms of the number of vehicular movements. It is therefore considered that the only likely sites for this type of renewable energy scheme, given the land area required for it to work efficiently, will be in countryside locations, and as such the location of this development would be acceptable.
- 8.5 Alongside the functional reasons for such a countryside location, there is also significant national policy weight to indicate that such proposals should be supported. The UK has signed up to the EU Renewable Energy Directive, which requires us to generate 15% of our energy from renewable resources by 2020. In 2008 the UK achieved a figure of around 2%. The National Policy Statement for Energy (EN1) (2010) stresses that the reliance on fossil fuels must be reduced, to lessen greenhouse gas emissions and improve the security, availability and affordability of energy through diversification of energy sources. There is much greater emphasis on 'positive planning', which facilitates renewable energy developments. Indeed Chapter 10 of the

NPPF which addresses climate change states in para 98 that LPA's should "approve the application (unless material considerations indicate otherwise) if its impacts are (or can be made) acceptable." Core Strategy Policy EN4, on renewable energy, states that renewable energy proposals will be supported wherever possible unless their wider environmental, social and economic benefits would be outweighed by adverse effects on the environment and amenity, key views, protected species and residential amenity.

- 8.6 **The impact on visual amenity and the character of the countryside:** The application site is located in the open countryside to the south of Stretham. The surrounding land is mostly agricultural, predominantly arable, and is fairly flat. The site is relatively remote, with public access and close views of the site only affordable from the river bank public right of way adjacent to the north of the site. To the southern and eastern boundaries there are mature hedgerows and trees, and some tree /hedge cover exists on the northern boundary. Immediately to the south-east are large farm buildings and a reservoir with a steep bank. The nearest residential property is located adjacent to the southern boundary of the site, Chittering Farm, which is in the ownership of the applicant, however this is screened from the site by a tree belt, and it is proposed that the tree belt will be extended and augmented to reduce adverse impact from the proposal. The view of the site from the cottages adjacent to the Pumping Engine to the north-east is restricted by the intervening hedges and trees, and again it is proposed to plant additional trees on this boundary. The site is therefore already quite well screened, but it can be seen as a distant view from the Lazy Otter public house to the west across open fields, and along the riverbank walk to the north west.
- 8.7 With the required spacing between the rows of PV panel installations, the PV panels themselves, will have a surface area covering approximately 24% of the site, being 9 ha in area. Each panel would be approximately 1 metre wide by 1.7 metres high, mounted on frames at an angle of 35 degrees facing south, and set out in rows running east to west. On their frames, they will be 2.54 metres high at their highest point and 0.2 metres at their lowest with 6.5 metre spacing between rows (modules), to ensure the land between modules can continue to be used for agricultural production. The development has been set back from the southern field boundary to minimise visual effect on the property to the south and ensure shadow effects from adjacent trees is negated.
- 8.8 The applicant has submitted a Landscape and Visual Impact Assessment, which includes a selection of viewpoints, considered to be representative of the range of views and receptors around the site. The assessment identifies that whilst there would be some visual change at the local level, it would not necessarily be a harmful one, and the low profile of the panels and the height and colour of the associated fencing means that existing vegetation has the ability to screen and filter many potential views. The most significant effect, as stated above, is from the west and north. In order to mitigate this, the submitted Landscape Plan shows a hedgerow with intermittent trees to the western boundary, a larger group of trees planted to the north western corner near the river bank, and further tree and hedge planting to augment the existing natural boundary on the northern edge will soften views to the site when seen from the Public Right of Way. The height of the structures will allow for effective screening. Additional trees would be planted within the site adjacent to the two ditches running from west to east across the site. Therefore any adverse views from public vantage points would

diminish over a relatively short time scale as the new planting begins to mature, reflecting the existing hedgerows in the vicinity of the site.

- 8.9 The Impact Assessment concluded that the qualities and setting of the Fens would not be materially affected by the proposed development. The impacts on the views of the development would be mitigated through the design of the facility and soft landscaping. The parallel rows of PV Panels in this location would not be considered to be an incongruous addition to the agricultural landscape and nature of the area as when viewed from a distance, if they are to be visible, they would be seen only partially, due to proposed screening and spacing on site, to allow for continued agricultural use. If the development could be seen, the nature of the development, being regular spaced rows of panels, would not be too dissimilar to other agricultural operations in the area, such as glasshouses or poly tunnels and the rows of plastic sheeting used to encourage crop growth. On balance, whilst it would be visible from some points and would represent a new 'industrial' element in the landscape, it is considered that the development could be successfully assimilated into the surrounding landscape without any significant adverse effects on visual amenity or the character and setting of the area.
- 8.10 **The impact on nearby heritage assets:** Policy EN5 aims to ensure that development proposals do not have an adverse impact on the historic environment. In this case the main issues relate to nearby listed buildings and scheduled monuments, and to potential archaeological remains. As detailed above, the site is within 460m of Stretham Pumping Engine which is a Scheduled Monument and a Grade II* listed building and Greenways Cottage listed Grade II, and 1.8m from the Tiled House Farm Roman Villa, which is a Scheduled Ancient Monument. The Heritage/Archaeological Assessment and the supplementary report submitted concludes that the operation of the facility would not result in any direct impacts on the identified cultural heritage receptors but that there may be an impact on the setting. However as the setting has already been influenced by modern agricultural buildings etc, and the site would be screened, the proposal would not result in residual impacts on the setting of the cultural heritage assets in the area surrounding the site.
- 8:11 English Heritage considered that there might be a degree of harm to the setting of these heritage assets. Having viewed the additional photomontage and report, they advise that the evidence suggests there will be some impact on the setting of the heritage assets but it is unlikely that the proposed development will impact on the relationship between the pumping station and the river. The impact will be 'harmful', but the harm would be less than substantial. They refer to Policy 134 of the NPPF which states that: *"Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal..."* and suggest that if the LPA consider there are sufficient public benefits, then they should feel free to determine the application in accordance with their policies. Given that the hedgerow and treebelt along the eastern boundary is proposed to be augmented within the landscape proposals, it is your Officer's view that given the distance from the site and the intervening trees and hedges, there would not be a significant impact on these heritage assets.
- 8.12 Turning to the archaeological issues, the Heritage/Archaeological Assessment concludes that the construction of the proposed solar farm would have no direct or indirect impact on archaeology at the site. The report states that the proposed development site is situated within an area of recorded peat deposits, forming a part of

the broad landscape of the Fens. A large number of surface finds of Neolithic and Bronze Age date have been recorded in the study area, suggesting there may be some limited potential for currently unrecorded heritage assets of archaeological interest of these dates to lie within the site. The focus of settlement in the late prehistoric and Roman periods appears to have lain to the north and north-east of the site, around Tiled House Farm, with this site forming part of the agricultural hinterland of these settlements. As such, there is considered to be limited potential for settlement evidence of prehistoric or Roman date to lie within the site. Settlement in the post-Roman and medieval periods appears to have moved further north, again suggesting that the proposed development site formed part of the agricultural hinterland of the village of Stretham, and suggesting very limited potential for settlement evidence of these dates. Two post-medieval wind pumps previously lay immediately to the north of the site. These are no longer extant, and did not extend into the site itself. Thus whilst there is some limited potential for archaeological remains of Iron Age or Roman date to be preserved within the site, they would probably relate to agricultural activity, rather than evidence of settlement or occupation, and would be considered of low heritage value. Two post-medieval wind pumps previously lay immediately to the north of the site. These are no longer extant, and did not extend into the site itself.

- 8.13 The County Archaeology team originally asked that a decision on the planning application be deferred until an appropriate archaeological investigation has been undertaken. However having visited the site and discussed the proposed construction methods, they now conclude that no archaeological investigation will be required.
- 8.14 **The impact on ecology and biodiversity:** Policies CS6 and EN6 seeks to ensure wildlife is protected and habitats are enhanced if possible. In this case the Ecological Impact Assessment which accompanies the application, which included a Phase 1 Habitat Survey of the site, concluded that the site had an extremely low potential to support protected species, and as such, no further protected species surveys are considered to be necessary. There were a number of bird species present at the site, including skylarks. However there was little animal presence, apart from the brown hare. It was considered unlikely that water voles were present, but may forage in the drains, as may passing otters. There were a number of grasses and plant varieties in the field margins and hedgerows around the site. Both English Nature and the Environment Agency have commented on the Assessment, given the proximity of the Cam Washes SSSI and local County Wildlife Sites. Supplementary information has been received to address issues raised by these consultees and Natural England have now raised no concerns. Further comments are awaited from the Environment Agency, but they have withdrawn their original request for a specific condition in respect of skylarks and brown hares as they do not now consider the proposal to have a significant adverse impact on these species. The submission contains a management plan to ensure wildlife is protected, and the supplementary report includes management of skylarks and brown hares. It is considered that an appropriate condition can be imposed to ensure the natural environment of the site is appropriately managed.
- 8.15 The landscape proposals for the facility have been developed in order to provide improved habitat around the periphery of the solar farm as well as mitigating potential visual effects of the proposal. The watercourses that cross the site and run along the western boundary of the site would be retained along with all associated planting. Additional native species planting would be carried out to reinforce the existing tree and scrub present along the ditch corridor. The additional planting would help to further

screen low level views from the south and west of the facility and would also enhance the quality of this wildlife corridor. The enhancement of the existing vegetation and tree line on the northern boundary will supplement existing habitats. The applicant has also advised that the land between the rows would continue to be used for silage/hay in the growing season and grass/stock feed in the non-growing season, so as a result of the improved management and new planting, a beneficial effect on habitat creation would be likely. Following construction of the facility the imposition on wildlife would be relatively benign and certainly not as intensive as current agricultural use. Consequently it is considered that the development would not result in the loss habitat on or adjacent to the site. The assessments have shown that no protected species would be harmed as a result of the development, and proposed mitigation measures in the form of planting and a management plan, would be likely to enhance wildlife habitat.

- 8.16 **The possible loss of agricultural land:** The application site comprises land in arable production as part of a 1,214 hectare estate, (800ha of which is owned) managed and farmed by the applicant. The principal operation is vegetable production for the UK and European food market. The applicant is seeking alternative revenue sources to assist and contribute to the long-term sustainability and continued operation of the estate. Policy EC5 seeks to support farm diversification proposals which help to ensure the viability of the rest of the enterprise. In this case the applicant is seeking to maximise its assets in a way that would not be to the detriment of its productivity, as well as provide alternative income sources to safeguard the operation and those it employs in the area against future unseen market changes that could otherwise have a negative effect on the potential stability of the business. Alternative renewable technologies were investigated, but discounted as anaerobic digestion would have required a constant feed stock that could not be guaranteed, and would have required the permanent removal of beneficial crop growing land which would have been contrary to the core business of the Estate. In addition, the scale and mass of the development, with building heights of up to 15 metres, was considered too large for the location. An array of wind turbines could have enabled the continued dual use of the land, but would have required an average hub height turbine of at least 40m to ensure delivery, with consequent adverse impact on the landscape and limited energy delivery.
- 8.17 The site and immediate adjacent land has been identified within the application as being of Agricultural Land Classification Grade 1. Former planning policy sought to protect the best and most versatile agricultural land, but this is no longer the case. Additionally, due to the nature of the development, i.e. minimal ground intrusion and limited land-take, the solar farm would not cause the irreversible loss of best and most versatile land. The remaining land would still to be used for agricultural purposes (crop production), and could be returned to agricultural use with relative ease. Impacts on the land would be negligible in terms of effect on the quality of the soil. As such it is considered that the construction of the proposed solar farm would have a limited effect on agricultural productivity at the farm, with the build programme being limited in time, and the construction method not requiring material removal from site, due to the proposed 'foundation' methods to be employed.
- 8.18 **Highways issues:** Access to the site is via Cross Drove, which runs from the A1123 to Stowbridge Farm the access to the site from the highway is hard surfaced and in good condition. It is used by lorries and farm vehicles to access the farms on the estate, and a private farm track that runs parallel to the Byway to the north. Adjacent to Cross Drove and the agricultural sheds at the south of the site is an existing hard-surfaced

area, with drainage. This is to be used for construction traffic / materials storage. The distance of bound roadway between the site and the A1123 will ensure vehicles can stop off the highway, and not bring mud and debris onto the road after their departure from site. When accessing / egressing the site from the A1123, the estate is 'gated' by electronic control. However there is sufficient space to allow delivery vehicles to be off the public highway prior to accessing the site, so ensuring continued safe operation and use of the public highway.

- 8.19 In terms of amount and type of traffic generated by the proposal, the vast majority of vehicular movements would be during the construction phase, which is anticipated to last approximately 80 weeks. The solar panels would be delivered on HGVs, of the type already in use on the farm roads, capable of carrying 550 panels each, giving a total of 150 lorry loads to supply the required 84,000 panels, at a rate of approximately 2 trips each day (4 movements) during the panel installation phase. Construction workers and ongoing maintenance of the site would be carried out by cars or light vans and would be on a low, intermittent basis.
- 8.20 County Highways have confirmed that the proposals are acceptable and it is considered that the development would not have an adverse impact on highway safety. Following the more intensive construction phase of the development the scale and nature of the traffic generated by the ongoing operation of the site is also considered to be acceptable in this rural location. Public Footpath No 16 Stretham, is adjacent to the north-west boundary of the site. However the Countryside Access Team have concluded that the footpath would not be affected by the proposal, as it is not used for access and therefore they have no objection. However they require that new hedge planting along the boundary should not encroach on the footpath, and suggest informatives to any approval in respect of treatment of the footpath during construction.
- 8.21 **Flood risk and drainage:** Policy EN7 seeks to ensure that proposals are not at risk of flooding and do not cause flood risk elsewhere. The submitted Flood Risk Assessment confirms the site is situated within Flood Zone 3, the area at high risk of flooding from Main River during the 1:100 year return period event. However, it advises that this classification does not take into consideration the existing flood defences that substantially reduce the risk of flooding from main rivers. The site is protected from flooding from the Old West River to the north by existing earth embankment defences and operational procedures of diverting flow elsewhere. These defences have a crest level well above the considered predicted future river flood levels. There is a very remote possibility of flooding at the site due to failure of the River Cam flood defences. If breaching were to occur there may be potential for the site to flood. This would include partial failure of the railway embankment too, the probability of this multiple failure is very remote. Because of the possible risk of flooding at the site and/or on its escape route, either due to failure of infrastructure or backing up in local ditches, the site will be recruited onto the Environment Agency's automatic flood warning system and site flood management procedures will be put in place. The main flood mitigation measure is to ensure that the site is evacuated or accessed if there is flooding or it is expected to occur. Generally the site will not be occupied.
- 8.22 Drainage, in terms of surface water run-off, would be as existing – direct to ground. No foul water drainage is required either during or post-construction, as welfare facilities for construction workers are available adjacent to the site. There is effectively no proposed increase in hard surfacing, at ground level, apart from the invertor buildings, where it is

proposed that filter drains be incorporated, and hence no proposed increase in site runoff, so the development would not increase the likelihood of flooding either on the site or on adjacent land. Neither the Environment Agency nor the Internal Drainage Board have objected to the proposal nor have they suggested conditions to be attached to any consent, although the EA suggest french drains be dug to prevent channelling of run-off water from the PV units which might impact on access and maintenance. The proposal is therefore considered to be acceptable in terms of drainage and flood risk.

- 8.23 **Other Issues: Contamination:** As the site is over an aquifer the Environment Agency raised concerns about the potential for contamination. Further information to address these concerns has been submitted to the Environment Agency (EA), but no reply yet given. This will be reported to members at the meeting if received. However the EA have not objected to the proposal but requested pre-commencement planning conditions to carry out a risk assessment and subsequent verification report to ensure the site poses no unacceptable risk. These conditions are included in the list attached.
- 8.24 **Proposed materials:** No details have been provided as to the materials of the proposed inverter or switch buildings, although sizes have been given, as has detail of the proposed PV panels and fencing. It is therefore proposed to secure this information by planning condition.
- 8.25 **Summary:** A renewable energy development of this scale will make an important contribution to the Government's aim of reducing carbon dioxide emissions, and Local and National Policy are therefore generally supportive of such schemes. It is considered that a countryside location is appropriate for this proposal and this site provides a good connection to the National Grid. The Environmental Statement (ES) concludes that the proposed development would benefit the wider economy and community, and create local job opportunities. It has also demonstrated that there are no significant effects relating to the proposed solar farm in terms of impact on local landscape character, amenity, flooding, ecology, heritage assets and their settings, agricultural land loss or transport. No other significant residual adverse environmental impacts have been identified. The proposal would have no adverse effect on the local environment and it would result in significant biodiversity enhancements, through a management regime that would encourage and protect flora and fauna. In view of the apparent insignificance of harm and the considerable benefits which would be gained, the application is recommended for Approval.

9.0 **RECOMMENDATION: APPROVE**

- 1.0 The development hereby permitted shall be commenced within 3 years of the date of this permission.
- 1.0 Reason: To comply with Section 91 of the Town and Country Planning Act 1990, as amended.
- 2.0 The proposed solar panels shall be of Trina Module TSM-D05 design, assembled as shown on plan 4586/03 Rev A and fixed to the ground in accordance with the details shown on plan 4586/11, and the panels shall be laid out in accordance with the submitted site layout plan No 4586/02, subject to the following parameters, unless otherwise agreed in writing by the Local Planning Authority:
Maximum panel height from ground level - 2.55m

Minimum distance between rows (measured panel to panel) – 6.5m

- 2.0 Reason: The proposed development has been deemed to be acceptable against the parameters set out above. To ensure that the development does not introduce any additional adverse effects in terms of its visual or ecological impact in accordance with policies EN1 and EN6 of the East Cambridgeshire Core Strategy 2009.
- 3.0 The construction of the proposed solar farm shall be managed and mitigated in accordance with the details contained in the Construction Operation Environmental Management Plan contained in Sections 5.5 and 5.6 of the Environmental Statement Volume 2: Main Report, and traffic shall be managed in accordance with Section 7.0 of that document, unless otherwise agreed in writing by the Local Planning Authority.
- 3.0 Reason: To ensure there is no adverse impact on the flora and fauna on the site or highway safety during the construction phase, in accordance with policies EN6 and S6 of the East Cambridgeshire Core Strategy 2009.
- 4.0 The proposal shall be carried out in strict accordance with the Environmental Management Plan set out in Section 9.5 of the Environmental Statement Volume 2: Main Report together with the details contained in para 6.2.1 of the submitted Harrison Group Environmental Report dated August 2012 and the letter submitted by Harrison Geotechnical dated 26th October 2012 as shown on Plan DR 106 (Proposed Mitigation Measures).
- 4.0 Reason: To ensure there is no adverse impact on the flora and fauna on the site and that habitat creation can be encouraged, in accordance with policies CS6 and EN6 of the East Cambridgeshire Core Strategy 2009.
- 5.0 The approved boundary treatment shall be the 2.0m dark green wire mesh panel fencing and gate shown on plans 4586/04 Rev B and 4586/05 Rev B, and laid out in accordance with the details shown on the site layout plan 4586/02. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 1995, (or any order amending, revoking or re-enacting that Order) no any additional boundary treatments shall be erected on the site without the prior written agreement of the local planning authority.
- 5.0 Reason: To safeguard the character and appearance of the countryside, in accordance with policies CS1, EN1 and EN2 of the East Cambridgeshire Core Strategy 2009.
- 6.0 Prior to the commencement of the development full details of the materials to be used for the inverter and switch buildings shall be submitted to the local planning authority and agreed in writing. The buildings shall be constructed in accordance with the details shown on plans 4586/07 and 08 and the CCTV cameras shall be mounted in accordance with the details shown on plan 4586/06 Rev A. All buildings and cameras shall be sited in accordance with the details shown on the site layout plan 4586/02.
- 6.0 Reason: To safeguard the character and appearance of the countryside, in accordance with policies CS1, EN1 and EN2 of the East Cambridgeshire Core Strategy 2009.

- 7.0 Notwithstanding the details submitted on the Landscape plan No 4586/15, full details of a written specification; schedules of plants noting species, plant sizes, proposed numbers/densities; and an implementation programme shall be submitted to the Local Planning Authority prior to commencement of construction. The agreed scheme, in accordance with the broad details shown on plan No 4586/15 shall thereafter be fully implemented in the first planting season following construction works. If within 5 years from the date of planting any plants are removed, uprooted destroyed or which die, another tree or plant of the same species and size as originally planted shall be planted at the same place, unless otherwise agreed by the local planning authority shall be replaced
- 7.0 Reason: To assimilate the development into its surroundings and ensure the longevity of the scheme, in accordance with policies EN1 and EN6 of the East Cambridgeshire Core Strategy 2009.
- 8.0 No lights shall be erected within the site without the prior written agreement of the local planning authority.
- 8.0 Reason: To safeguard the character and appearance of the countryside, in accordance with policies CS1, EN1 and EN2 of the East Cambridgeshire Core Strategy 2009.
- 9.0 A scheme for temporary signing of the access off the A1123 shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Local Highway Authority prior to commencement of works. The approved scheme shall be implemented prior to commencement of works and removed within 7 days of completion of works.
- 9.0 Reason: In the interests of highway safety, in accordance with policy S6 of the East Cambridgeshire Core Strategy 2009.
- 10.0 Should the solar panels not be used for the production of energy for a period of six months, the panels, support structures and associated buildings shall be removed in their entirety and the land shall be restored to its former condition before accordance with a scheme of work submitted to and approved in writing by the Local Planning Authority.
- 10.0 Reason: To prevent the retention of development in the countryside that is not being used for its intended purpose in accordance with policy CS1 and EN1 of the Cambridgeshire Core Strategy 2009.
- 11.0 No development approved by this planning permission shall take place until a scheme that includes the following components to deal with the risks associated with contamination of the site has each been submitted to and approved, in writing by the local planning authority:
- 1) A preliminary risk assessment which has identified:
 - All previous uses;
 - Potential contaminants associated with those uses;
 - A conceptual model of the site indicating sources, pathways and receptors;
 - Potentially unacceptable risks arising from contamination of the site.

2) A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to controlled waters.

3) The results of the site investigation and detailed quantitative risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Any changes to these components will require the written consent of the local planning authority. The scheme shall be implemented as approved.

- 11.0 Reason: To protect the pollution of controlled waters (particularly Woburn Sand Formation of the Cam & Ely Ouse water body underlying the site and the Old West river north of the site) from potential pollutants, in line with the National Planning Policy Framework (NPPF) and Policy EN8 of the East Cambridgeshire Core Strategy 2009.
- 12.0 No occupation of any part of the permitted development shall take place until a verification report demonstrating completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved, in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a "long-term monitoring and maintenance plan") for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan. The long-term monitoring and maintenance plan shall be implemented as approved.
- 12.0 Reason: To protect the pollution of controlled waters (particularly Woburn Sand Formation of the Cam & Ely Ouse water body underlying the site and the Old West river north of the site) from potential pollutants, in line with the National Planning Policy Framework (NPPF) and Policy EN8 of the East Cambridgeshire Core Strategy 2009.
- 13.0 If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until the developer has submitted a remediation strategy to the local planning authority detailing how this unsuspected contamination shall be dealt with and obtained written approval from the local planning authority. The remediation strategy shall be implemented as approved.
- 13.0 Reason: To protect the pollution of controlled waters (particularly Woburn Sand Formation of the Cam & Ely Ouse water body underlying the site and the Old West river north of the site) from potential pollutants, in line with the National Planning Policy Framework (NPPF) and Policy EN8 of the East Cambridgeshire Core Strategy 2009.

<u>Background Documents</u>	<u>Location(s)</u>	<u>Contact Officer(s)</u>
Application File E/12/00732/ESF National Planning Policy Framework National Policy Statement for Energy Oct 2010	Sue Finlayson Room No. 011 The Grange Ely	Sue Finlayson Team Leader, Development Control 01353 665555 sue.finlayson@eastcambs.gov.uk