

**14 November 2013****Agenda Item: 4 d****REPORT OF THE CORPORATE DIRECTOR FOR POLICY, PLANNING AND  
CORPORATE****STRATEGIC PLANNING OBSERVATIONS ON THE INSTALLATION OF A  
SOLAR FARM AT LODGE FARM, ORSTON****Purpose of the Report**

1. To seek Committee ratification for comments set out in this report which were sent to Rushcliffe Borough Council (RBC) on the 18<sup>th</sup> October 2013 in response to the request for strategic planning observations on the above planning application for the installation of a solar farm, at Lodge Farm, Orston.

**Information and Advice**

2. Nottinghamshire County Council (NCC) has been asked for strategic planning observations on the application and this report compiles responses from Departments involved in providing comments and observations on such matters. Comments were sent to Rushcliffe Borough Council on the 18<sup>th</sup> October 2013 in their role as determining planning authority for this application. A site plan is provided at Appendix 1.
3. The planning application is accompanied by an Environmental Statement, Design and Access Statement and a range of other supporting documents. This report is based on the information submitted with the application in the context of national, regional and local policy.

**Description of the Proposal**

The solar farm will be comprised of the following components, all of which are designed to last at least 25 years:

- **Solar Panels:** The solar farm will require approximately 51,288 PV panels, with a combined energy generation capacity of approximately 12.4MW. The panels will be approximately 1.959m x 0.995m, with a depth of approximately 0.05m.
- **Mounting Frames:** The solar panels will be attached to mounting frames at an angle of 25 degrees, to optimise daylight capture. The panels are fixed in place and will not move to 'track' the sun throughout the day. The mounted

solar panels will have a maximum height of 2.5m above ground level and at the lower end will be 900mm above ground level.

- The mounting frames are pile driven into the ground, and no concrete foundations are required. The base of the frame piles are 'H' shaped, thus they have very little impact on the ground and do not require any prior excavation. The frames are driven to a depth of approximately 1.5m. At the end of their operational life when the site is decommissioned, the frame piles are simply pulled out from the ground causing minimal ground disturbance. The mounting frames will be made of either galvanized aluminium or steel and will have a rough matt finish, rather than a polished finish.
- **Inverters:** The panels generate Direct Current (DC) electricity which must be converted into Alternating Current (AC) before being fed into the local electricity grid network. Central inverters are housed in a cabin like structure of approximately 2.27m high x 5.6m long x 1.32m wide and painted dark green. The Central Inverter block is mounted on a concrete base. A total of 7 inverters are required, as shown in the Layout Plan.
- **Transformers:** The transformer transforms electrical energy from one circuit to another, and allows for the energy generated to be fed into the local grid network. The transformer is housed externally separately from the Inverters. A total of 9 transformers are required.
- **Switchgear Substations:** Substations represent the onsite point of connection from where electricity flows into the grid network via the connection cable. The substations house the site switchgear. Switchgear is used as a safety mechanism to protect both the solar farm from any fault in the grid network, and the grid from any fault in the solar farm. It is used to disconnect electrical circuits if there is a fault in the system, much like a household fuse box. Two sets of switchgear are required, one to shut the grid off from the solar farm (referred to as the DNO Substation) and a second to shut the solar farm off from the grid.
- The switchgear will either be housed in two separate cabinets side by side, one set of the switchgear in each, or with both sets in one building with an internal wall separating them. Substations with a volume of 29m<sup>3</sup> or less can be installed under Permitted Development rights.
- **Security Fence:** A 2m high fence will be installed around the solar farm for security purposes. The purpose of the fence is two-fold: first to protect the solar farm from theft and vandalism; and second to prevent unauthorised access to the solar farm.

### **Planning Policy Context**

#### **National Planning Policy Framework (NPPF)**

4. There are clear aims and policies at a national strategic level that underline the need to meet renewable energy targets. The Government's renewable energy

target seeks to generate 10% of UK electricity from renewable sources by 2010, its aspiration by 2020 is 20%. As a minimum, the UK must meet its legally binding target of 15% by 2020 as set out in the EU Renewable Energy Directive.

5. Planning Practice Guidance for Renewable and Low Carbon Energy (July 2013) states at paragraph 26 that

*“The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscape. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively”.*

#### **Rushcliffe Local Plan**

6. Rushcliffe Borough Council has formally adopted a Non-Statutory Replacement Local Plan (NSLP) and has determined that it carries significant weight in determining planning applications. This is following the abandonment of their Local Plan process.
7. The following policies are considered to be of relevance in the determination of this planning application; Policy EN20 seeks to restrict development in the open countryside, except for rural activities and other uses appropriate to the countryside and Policy EN24 which seeks to promote renewable energy, other than where sites have nationally recognised designations; and ensuring that location and design minimise increases in ambient noise levels and adverse impact on visual or residential amenity.

#### **Rushcliffe Core Strategy**

8. The Rushcliffe Core Strategy was submitted to the Secretary of State in October 2012. Policy 1 ‘Climate Change’ seeks to ensure that new development proposals reduce carbon emissions, adapt to climate change and contribute to national and local renewable energy targets. The onus is placed upon the applicant to ensure that their proposal conforms with the criteria set out in the policy and that it would not cause harm to the natural or built environment.

#### **Strategic Planning Issues**

##### **Highways**

9. The Highways Authority has no objections to the principle of this development, however the plans provided by the applicant are not of sufficient detail or scale to enable the Highways Team to determine the adequacy of the existing access.
10. It is therefore requested that a detailed plan showing the proposed site access be provided. In particular it would be useful to illustrate by vehicle tracking or similar, that the large rigid vehicles proposed for use during construction can enter and exit the site in a forward gear without overrunning the verge opposite.
11. Detailed Highway comments are set out in Appendix 2.

### Landscape and Visual Impact

12. The County Council is in general agreement with the findings of the Landscape and Visual Impact Assessment (LVIA) submitted by the applicant, however raise a number of concerns as follows:

- The Paragraph 3.6 first sentence of paragraph 3.6 should read “The field peaks in the **northwest** corner of the site at approximately 34m Above Ordnance Datum (AOD)” rather than southeast corner.
- With reference to paragraph 3.7 “Construction traffic will access the site from the minor road adjacent to the site’s western boundary to the north east of Orston.” Clarification is sought as to at what point will construction vehicles will enter the site and will this require removal of a section of the existing hedgerow?
- Paragraph 3.7 Operational traffic will have access to Lodge Farm on the northern boundary off Longhedge Lane. This area is not within the application area boundary. A yellow zone shown as a compound area and annotated as “concrete” is shown on drawing **General Plant 2.1 Rev 3**. Clarification is sought as to the proposed area of hard standing and whether this will require the removal of any existing hedgerow along Longhedge Lane?
- It is suggested that paragraph 7.40 be expanded to state the approximate timescales. Normal practice is to assess the impact at Year 1 following construction during the winter months and Year 15 during the summer when vegetation is in leaf.
- The swale is described as being along the eastern boundary of the site. However this has not been shown on the drawings. Clarification is sought as to where will the excavated material to create the shale be placed/disposed of?
- It is suggested that *Euonymus europaeus* be removed from the planting list and replaced with *Ligustrum vulgare* (Wild privet) which is on the species list for South Nottinghamshire Farmlands County Landscape Character Area.
- It is requested that some larger size **standard** hedgerow trees should be planted within gaps in the existing hedgerow. Areas to be gapped up should be shown on more detailed drawings as part of the planning conditions should consent be granted.
- The grass within the field of solar panels will be cut 3 to 4 times a year. Details are requested as to when and how often will the grass/wildflower field margins be cut each year? What provision for small mammal access and egress is made in the Deer Fence?

13. Detailed Landscape and Visual Impact comments are set out in Appendix 3.

### Ecology

14. No designated sites would be affected by the proposals; the nearest SSSI, Orston Plaster Pits is located approximately 1.95km to the south-west, whilst the nearest SINCLWS, Orston Horse Pasture (ref. no. 5/342) is located approximately 0.73km to the south-west.
15. No significant ecological impacts are predicted, and a number of mitigation measures are recommended, as follows;
  - a. Vegetation clearance during the bird nesting season should be controlled.
  - b. A pre-construction survey for badgers should be undertaken.
  - c. Excavations should be covered overnight or left with a means of escape should mammals become trapped in them.
  - d. The Reasonable Avoidance Measures for amphibians provided in Appendix 1 of the Ecological Appraisal should be adhered to.
  - e. Hedgerows and trees should be protected during construction
16. A number of site enhancements are recommended, relating to the site landscaping scheme as illustrated on the Planting Plan (L.0259\_04-D), as set out in Appendix 4 of this report.
17. In-principle agreement with these suggested amendments to the landscaping scheme should be sought from the applicant at this stage, with the submission of amended details and a landscape management plan secured through conditions.
18. Detailed Ecology comments are set out in Appendix 4.

### Overall Conclusions

19. The overall National Planning Policy context in relation to solar farms, as outlined above, is strongly supportive of the principle of renewable energy and the wider benefits of deploying renewable energy technologies in tackling climate change, subject to a number of considerations. The responsibility for determining planning applications for solar farms lies with district planning authorities.
20. The County Council support the principle of the proposed development in Highways terms, however, request additional information to be submitted in support of the application.
21. The County Council is in general agreement with the findings of the Landscape and Visual Impact Assessment (LVIA) submitted by the applicant, however raise a number of concerns as set out in Appendix 3.
22. Overall the County Council supports the proposal in principle, however, objections are raised on the basis that insufficient information has been submitted by the applicant in terms of Highways, Landscape and Visual Impact and Ecology. It is requested that additional information is submitted to address these issues.

### **Other Options Considered**

23. This report considers all of the relevant issues in relation to the above planning applications which have led to the recommendations, as set out below.

Alternative options considered could have been to express no or full support for the application.

### **Reason/s for Recommendation/s**

24. It is recognised that significant weight is given to renewable energy at a National and strategic planning level.
25. Overall the County Council supports the proposal in principle, however, objections are raised on the basis that insufficient information has been submitted in relation to Highways, Landscape and Visual Impact and Ecology. It is requested that additional information is provided in order to allow a full assessment of the proposal to be undertaken.

### **Statutory and Policy Implications**

26. This report has been compiled after consideration of implications in respect of finance, the public sector equality duty, human resources, crime and disorder, human rights, the safeguarding of children, sustainability and the environment and those using the service and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

### **Financial Implications**

27. There are no direct financial implications.

### **Implications for Sustainability and the Environment**

28. There are no direct implications for Sustainability and the Environment

### **RECOMMENDATION/S**

- 1) That Rushcliffe Borough Council be advised that the development is supported in principle as it is recognised that significant weight is given to renewable energy at a National and strategic planning level.
- 2) It is recommended that the application is deferred to allow the applicant to address the issues raised relating to Highways, Landscape and Visual Impact and Ecology set out in this report.

**Jayne Francis-Ward**

**Corporate Director, Policy, Planning and Corporate Services**

**For any enquiries about this report please contact: Nina Wilson, Principal Planning Officer, Planning Policy Team, ext 0115 9773793**

### **Financial Comments (SEM 17/10/13)**

29. There are no specific financial implications arising directly from this report.

### **Constitutional Comments (SHB.14.10.13)**

30. Committee have power to decide the Recommendation.

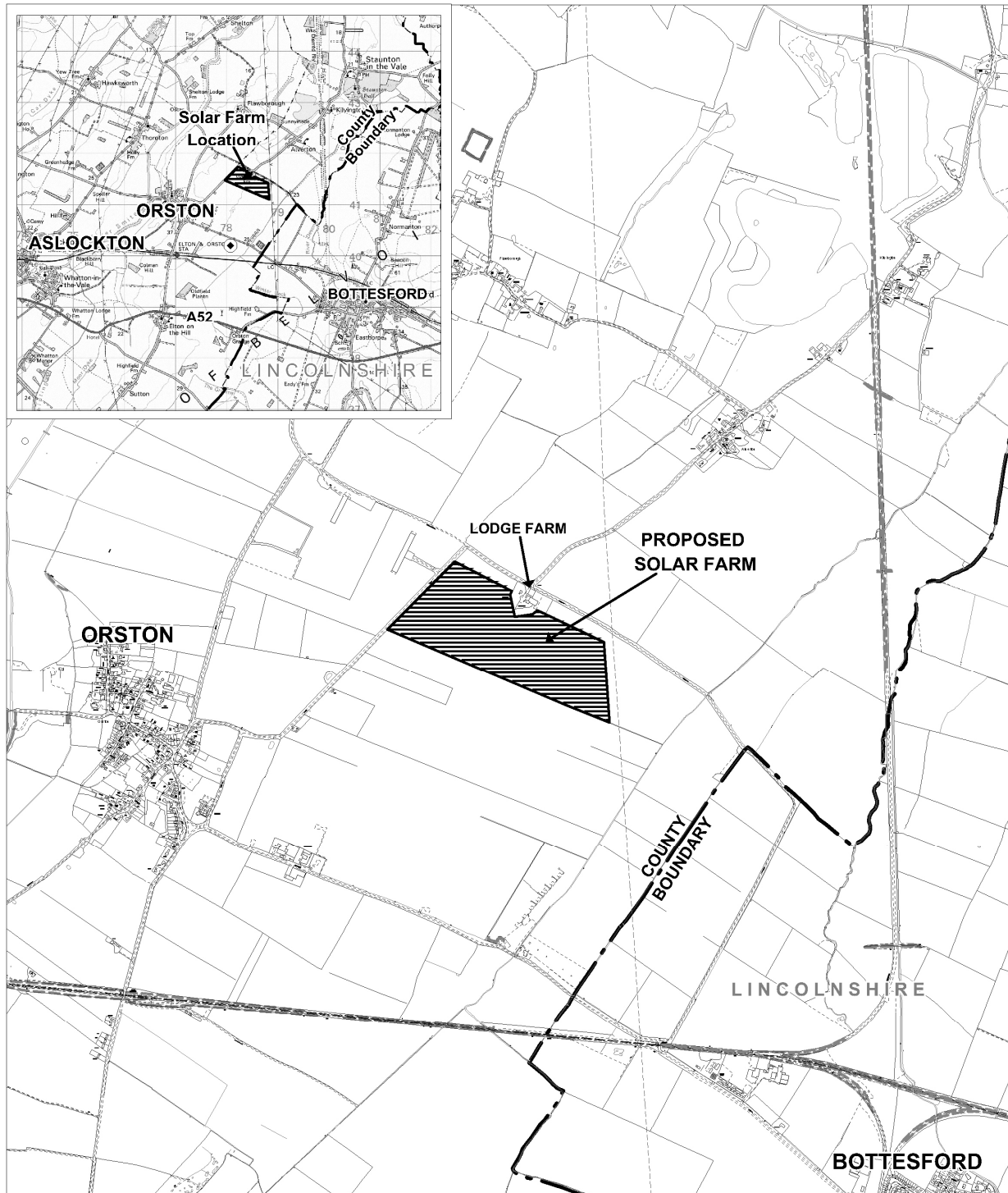
### **Background Papers and Published Documents**

Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

### **Electoral Division(s) and Member(s) Affected**

Bingham - Councillor Martin Suthers OBE

## Appendix 1 – Site Location Plan





### **Appendix 3 – Detailed Landscape Comments**

The proposed development is for a 12MW solar farm on a field, approximately 29.6 ha in size. Arranged in rows on an east to west axis, the solar panels will be 2.5m high at their tallest point, 0.9m at their lowest and be orientated to face south. The area will also accommodate 7no. inverters at approximately 2.3m high, 9no. transformers at 2.6m high, switch gear substations at 2.8m high and several internal access tracks. A 2m high Deer Fence will surround the site, set approximately 6m in from the existing field hedge. CCTV cameras will be positioned inside this fence at 3.5m high. I note that as the existing hedge is to be maintained at a height of 2.5 to 3m the top 0.5 to 1m section of columns and cameras are likely to be visible from parts of Longhedge Lane to the north and Spa Lane to the west. I note that this has not been identified within the LVIA.

I am in general agreement with the findings of the LVIA but have the following comments on the documents/drawings set out below:

Landscape and Visual Impact Assessment (Lightsource Renewable Energy Limited, 19th July 2013 Pegasus Group)

Paragraph 3.6 First sentence should say “*The field peaks in the **northwest** corner of the site at approximately 34m Above Ordnance Datum (AOD)*” rather than southeast corner.

Paragraph 3.7 “*Construction traffic will access the site from the minor road adjacent to the site’s western boundary to the north east of Orston.*” At what point will construction vehicles enter the site and will this require removal of a section of the existing hedgerow?

Paragraph 3.7 Operational traffic will have access to Lodge Farm on the northern boundary off Longhedge Lane. This area is not within the application area boundary. A yellow zone shown as a compound area and annotated as “*concrete*” is shown on drawing **General Plant 2.1 Rev 3**. Is this a proposed area of hard standing and will this require the removal of any existing hedgerow along Longhedge Lane?

Paragraph 3.20 It would be useful to show the non-landscape designations on a drawing which shows the study area in Appendix 3.

Paragraph 7.40 This paragraph should be expanded to state the approximate timescales. Normal practice is to assess the impact at Year 1 following construction during the winter months and Year 15 during the summer when vegetation is in leaf.

Planning, Design and Access Statement - Page 26 *Swale*

The swale is described as being along the eastern boundary of the site. However this has not been shown on the drawings. Where will the excavated material to create the swale be placed/disposed of?

Page 32 paragraph 6.4 *Appearance*

This paragraph describes the LVIA as having “before” views and “after” visual simulations. I could only find descriptions of the levels of sensitivity, magnitude of change and the significance of effect and no “after” visual simulations.

#### Planting Plan

*Euonymus europeaus* should be removed from the planting list and replaced with *Ligustrum vulgare* (*Wild privet*) which is on the species list for South Nottinghamshire Farmlands County Landscape Character Area.

Some larger size **standard** hedgerow trees should be planted within gaps in the existing hedgerow. Areas to be gapped up should be shown on more detailed drawings as part of the planning conditions should consent be granted.

The grass within the field of solar panels will be cut 3 to 4 times a year. When and how often will the grass/wildflower field margins be cut each year? What provision for small mammal access and egress is made in the Deer Fence?

Alison Stuart  
Landscape Architect  
Landscape and Reclamation Team  
Environment and Resources  
Nottinghamshire County Council

## Appendix 4 – Detailed Ecology Comments

### **Re: Orston Solar farm – 13/01609/FUL**

Thank you for consulting the Nature Conservation Unit of the Conservation Team on the above matter. I have the following comments regarding nature conservation issues:

- The application is supported by an Ecological Appraisal dated 31<sup>st</sup> July 2013, comprising a desktop study and Extended Phase 1 Habitat Survey.
- No designated sites would be affected by the proposals; the nearest SSSI, Orston Plaster Pits is located approximately 1.95km to the south-west, whilst the nearest SINCLWS, Orston Horse Pasture (ref. no. 5/342) is located approximately 0.73km to the south-west.
- Surveys indicate that the field in question is arable in nature, extending to 25.1ha in size, and is of low ecological value; however, it is evident that a number of arable farmland bird species, including skylark and yellow wagtail, are likely to be displaced by the solar farm.
- No significant ecological impacts are predicted, and a number of mitigation measures are recommended, as follows;
  - Vegetation clearance during the bird nesting season should be controlled.
  - A pre-construction survey for badgers should be undertaken.
  - Excavations should be covered overnight or left with a means of escape should mammals become trapped in them.
  - The Reasonable Avoidance Measures for amphibians provided in Appendix 1 of the Ecological Appraisal should be adhered to.
  - Hedgerows and trees should be protected during construction

Appropriate **conditions** should be used to secure these measures.

- In addition, a number of site enhancements are recommended, relating to the site landscaping scheme as illustrated on the Planting Plan (L.0259\_04-D);
  - The gapping up of the boundary hedges is welcomed and supported
  - It should be specified that all stock will be of native genetic origin, and ideally of local provenance (and at least from Forestry Commission Seed Zone 402)
  - It appears that a narrow strip of grassland will be sown inside the site security fence. To maximise the biodiversity value of the installation, the entire site should be sown with an appropriate wildflower mix (such as Emorsgate Seed's EM2 Standard General Purpose Meadow Mixture, or Naturescape's N1 General Purpose Meadow Mixture).
  - In addition, there appear to be several relatively large areas within or around the site which could be enhanced, such as a wide strip running north-south through the western part of the site, and a wide strip along the northern and eastern boundaries (outside the security fence). Seeding these areas with a wildflower mix should also be undertaken, assuming that they will no longer be cropped.

- Grassland areas should be managed by mowing once a year at the end of the summer, ideally with arisings removed (or alternatively, by grazing). However, it is appreciated that overshadowing of the panels needs to be prevented, so it may be acceptable to mow the rides between the panels slightly more frequently if required (but avoiding the period May to July, when plants will be in flower and of maximum benefit to insects), with other areas (as highlighted in the bullet point above) mown just once a year. It is suggested that a brief landscape management plan should be produced, detailing the ongoing management of grassland and hedgerow habitats.

In-principle agreement with these suggested amendments to the landscaping scheme should be sought from the applicant at this stage, with the submission of amended details and a landscape management plan secured through **conditions**.

I trust you will find the above comments of use, but if you require any further information, please do not hesitate to contact me.

Nick Crouch  
Senior Practitioner Nature Conservation