

## **Solar Farm**

### **Land at Pickhill Bridge Farm**



## **Decommissioning Statement**

**5 March 2020**

## 1 Introduction

- 1.1 This Decommissioning Statement accompanies a Section 73 (S.73) application (LPA Ref. P/2020/0104) to Wrexham County Borough Council (the Council) to extend the operational lifespan of the solar farm at Pickhill Bridge Farm, Cross Lanes, Wrexham (the Site) to 40 years from the date of first electricity export. This Decommissioning Statement has been submitted to outline the proposed methods to decommission the approved solar farm and return the Site to its original use.
- 1.2 The solar farm has been constructed in line with planning permission P/2015/0287 (as amended by NMAs) which was granted by the Council on 31 July 2015, with Condition 3 setting out a temporary permission for a 30-year operational lifespan from the date when planning permission was granted. This is the planning permission that the S.73 application (Ref. P/2020/0104) seeks to vary.
- 1.3 An application for approval of details reserved by condition (Ref. P/2016/0830) to discharge Condition 4 of planning permission P/2015/0287 was approved on 29<sup>th</sup> September 2016, after a Decommissioning Statement (2204.CAU.XX.XX.RP.T.0301.S4.C1, September 2016) was submitted to the Council. That Decommissioning Statement states that “the solar PV farm will be decommissioned after 25 years (ie during the 26<sup>th</sup> year)” despite the operational lifespan of the solar farm being permitted to 30 years from the date of planning permission granted under Condition 3 of planning permission P/2015/0287.
- 1.4 The Council has requested, in support of the S.73 planning application P/2020/0104, a revised Decommissioning Statement to cover the extended operational lifespan to 40 years from the date of first electricity export. This Decommissioning Statement sets out the methods that will be used to decommission the solar farm and its associated infrastructure and restore the Site to its original condition at the end of the 40-year operational lifespan, if the Council are minded to approve planning application P/2020/0104.

## 2 Decommissioning

- 2.1 To restore the Site to its original use at the end of the 40-year operational lifespan, the timescale of decommissioning the solar farm on Site is expected to take up to four months. The process will be the same as that set out in the Decommissioning Plan approved under P/2016/0830 (2204.CAU.XX.XX.RP.T.0301.S4.C1, September 2016 – refer to Appendix A) and will involve the removal of the solar panels, the mounting frames and thereafter the pile driven steel supports.
- 2.2 Following this, underground cabling will be removed along with the inverters, switchgear housing and concrete bases that have been developed on Site. CCTV cameras, fencing and access tracks will then be removed where upon completion, the land will return to the landowner for agricultural use.
- 2.3 In terms of nuisances such as dust, light and noise, the decommissioning process will be undertaken similarly to the construction operations described in the original Decommissioning Statement (refer to Section 5.0) approved under P/2016/0830. It is proposed that all decommissioning works will take place between the hours of 0800 and 1800 on Monday to Friday, including 0800 to 1300 hours on Saturdays. No works will be undertaken outside these hours and days, including Public Holidays, to minimise noise impacts on local amenity through vehicle movement.

### **3 Conclusion**

- 3.1 This Decommissioning Statement has been submitted at the request of the Council in support of planning application P/2020/0104 to extend the operational lifespan of the solar farm to 40 years from the date of first electricity export, rather than 30 years from the date of planning permission P/2015/0287 being granted.
- 3.2 The Decommissioning Statement reconfirms the decommissioning methods that will be undertaken on the Site once the operation of the solar farm has ceased, which will be the same as those set out in the previous Decommissioning Statement submitted and approved under planning permission P/2016/0830.
- 3.3 The timescale of decommissioning the solar farm and associated infrastructure will be up to four months, with the works to be carried out during sensitive hours on selected days of the week highlighted under Paragraph 2.3 of this Decommissioning Statement.
- 3.4 In summary, the only change between the approved Decommissioning Statement (Appendix A) and this document is to extend the operational lifespan of the solar farm to 40 years from the date of first electricity export. It is noted that the original Decommissioning Statement (Appendix A) states under Paragraph 2.1 that “it is assumed that after 26 years it will not be cost effective or practical to reuse the equipment on other solar PV farms as technology will have advanced making the equipment obsolete and more expensive than new items to install”. However, now that the solar farm has been in operation and monitored, panel degradation seems slower than originally anticipated and panel manufacturers can provide longer operational warranties. As such, the solar farm is able to operate for 40 years.
- 3.5 This Decommissioning Statement provides sufficient information and confirmation that the solar farm will be decommissioned after 40 years from the date of first electricity export using the same methods put forward in the previous Decommissioning Statement accepted by the Council under P/2015/0830.

**Appendix A**  
**Decommissioning Statement approved under P/2016/0830**  
**(Ref. 2204.CAU.XX.XX.RP.T.0301.S4.C1, September 2016)**

**P /2016/0830**

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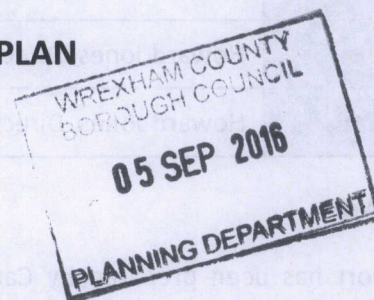
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**LAND AT PICKHILL BRIDGE FARM, CROSS LANES, WREXHAM**

**EARTHWORM ENERGY PLC LTD**

**USE OF LAND FOR THE ERECTION OF A SOLAR PHOTOVOLTAIC ARRAY UP TO  
4MW IN CAPACITY, INCLUDING METERING AND INVERTER KIOSKS, SECURITY  
CAMERAS, FENCING AND GATES AND A TEMPORARY CONSTRUCTION  
COMPOUND AND ACCESS TRACK.**

### **DECOMMISSIONING PLAN**



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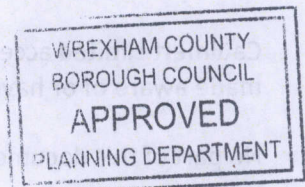
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**September 2016**



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Engineering, Environmental and Planning

**APPROVAL RECORD**

**Site:** Land at Pickhill Bridge Farm, Cross Lanes, Wrexham

**Client:** Earthworm Energy plc Ltd

**Project Title:** Pickhill Bridge Farm Solar PV

**Document Title:** Decommissioning Plan

**Document Ref:** 2204.CAU.XX.XX.RP.T.0301.S4.C1

**Report Status:** Final

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|                 |                                    |             |                                |
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| <b>Reviewer</b> | Howard Jones, Director of Planning | <b>Date</b> | 5 <sup>th</sup> September 2016 |
| <b>Approved</b> | Howard Jones, Director of Planning | <b>Date</b> | 5 <sup>th</sup> September 2016 |

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## 1.0 INTRODUCTION

- 1.1 The project consists of the construction of a solar photovoltaic (PV) electricity generation plant connected into the national grid electricity distribution system. The site is located approximately 5km south-east of Wrexham and 1.7km to the north-east of Cross Lanes Village. The site is located immediately south of the River Clywedog, approximately 200m from the developed edge of Wrexham Industrial Estate.
- 1.2 The solar PV farm will consist of solar panels erected on ground mounted frames fixed to pile driven steel supports arranged in linear rows. The electrical output of the solar panels will be connected to the National Grid via a network of underground cables, inverters and transformers.
- 1.3 It is expected that the solar PV farm will be in operation for a period of 25 years commencing in 2017. The solar PV farm will be decommissioned after 25 years (ie during the 26th year) and removed after which the land would be returned to agricultural use.
- 1.4 Decommissioning of the solar PV farm will be financed from a dedicated deconstruction bond accrued over the life of the project.
- 1.5 The solar farm will be maintained throughout the 26 year period and equipment repaired and replaced promptly to continue the supply of electricity to the National Grid. Should the solar farm need to be removed earlier during the 26 year term a decommissioning plan will be prepared and submitted for approval and actioned within the timetable specified by the Planning Authority.
- 1.6 This Decommissioning Plan has been prepared to outline the proposed methods to deconstruct the solar PV farm and returning the site to agricultural use.

## 2.0 WASTE MANAGEMENT

- 2.1 It is assumed that after 26 years it will not be cost effective or practical to reuse the equipment on other solar PV farms as technology will have advanced making the equipment obsolete and more expensive than new items to install.
- 2.2 Materials within 1.2m of the ground level will be removed, though it is not expected that significant amounts of materials will remain below this depth.
- 2.3 Table 1 summarises the intended disposal methods of the principal materials resulting from the decommissioning. None of these materials are deemed hazardous in their intact state.

Table 1: Waste Management Proposals

| Item                                               | Materials Contained                                                                              | Disposal Methodology                                                            |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Solar photovoltaic panels                          | Aluminium<br>Glass<br>Plastics<br>Copper<br>Silicon photovoltaic cells<br>Adhesives and sealants | Off-site recycling (up to 80% of a silicon solar panel is currently recyclable) |
| Array framework                                    | Zinc galvanised steel                                                                            | Off-site recycling                                                              |
| Electrical cabling                                 | Copper<br>Steel<br>Plastics                                                                      | Off-site processing to separate materials for recycling & disposal              |
| Electrical connectors                              | Copper<br>Steel<br>Plastics<br>Ceramics                                                          | Off-site processing to separate materials for recycling & disposal              |
| Ducts                                              | uPVC plastic                                                                                     | Off-site recycling                                                              |
| Transformers, etc, including containers/cabinets   | Copper<br>Steel<br>Aluminium<br>Ceramics<br>Plastics<br>Electrical components                    | Off-site processing to separate materials for recycling & disposal              |
| Fencing & gates                                    | Zinc galvanised steel                                                                            | Off-site recycling                                                              |
| Hardstandings, foundations, culvert & access track | Aggregates                                                                                       | On and off site reuse                                                           |
|                                                    | Concrete                                                                                         | Off-site recycling (crushed for reuse as hard core)                             |
|                                                    | Geotextile                                                                                       | Disposal off site                                                               |
| CCTV system                                        | Copper<br>Steel<br>Plastics<br>Glass                                                             | Off-site processing to separate materials for recycling & disposal              |

- 2.4 Recycling and disposal of waste will be handled by operators with Waste Transfer Licences using licensed waste and recycling sites controlled by NRW.

### 3.0 DECONSTRUCTION PROCESS

- 3.1 Deconstruction of the site is estimated to take between 2 to 4 months in order to return the site for reuse as either pasture or arable land. Deconstruction will commence with removing the solar panels, followed by the mounting frames, then removal of the pile driven steel supports. This will be followed by the removal of the buried electrical cables, inverters, switch gear housings and concrete bases, of which there will be very few. CCTV system fencing and access tracks will then be removed to leave a clear field.
- 3.2 The field will then be prepared for return to the landowner for agricultural use including the removal of the access track.

5.1 The decommissioning operations will be undertaken in a similar way to the installation with nuisance (ie, noise, dust, light, etc) to be controlled by methods outlined in a Construction Management Plan which will be agreed with the appropriate authorities. Expected controls are outlined in the Construction Management Plan for the installation with updates for future standards, techniques and regulations.



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