Wrexham Solar Farm PV Extension Decommissioning Plan

Wrexham – Atrato Energy

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1 Introduction

1.1 Planning Conditions

Atrato Energy Holdco Ltd (the "Applicant") hereby submits this decommissioning plan for the eventual decommissioning of the Wrexham Solar Farm PV extension located at North-East Of Maelor Works, Cross Lanes, Wrexham, LL13 0UW. The decommissioning plan will be in accordance with the parameters set out in condition 3 and 4 of P/2024/1601, cited below:

> *3. The development hereby permitted shall be removed and the land restored within 40 years from the date when electrical power is first exported ('first export date') to the electricity grid network, excluding exported during initial testing and commissioning. Written confirmation of the first export date shall be provided to the Local Planning Authority no later than one calendar month after the event. Should the export of energy cease sooner, within 6 months of the cessation of the use of the development for the generation of electricity, whichever is the sooner, all plant, equipment hardstanding, machinery and/or materials forming part of or connected with that use shall be removed not later than one month after that date.*
>
> *4. A Decommissioning Plan shall be submitted to and approved in writing by the Local Planning Authority prior to the first beneficial use of the development for the generation of electricity. The Decommissioning Plan shall include details of the works necessary to revert the site to its original condition, including the method for the removal of all the solar panels, sub-stations, inverter stations, structures, enclosures, equipment and all other apparatus above and below ground level from the site, details of their destination in terms of waste/recycling, and details as to how the site is to be restored to its original condition. The Decommissioning Plan shall also include a timeframe for such works which will address both time limits set out in Condition 3.*

1.2 Site Location

The site consists of an area of 9.3 hectares between the Maelor Gas Works and Wrexham Industrial Estate, surrounding the existing Pickhill Solar Farm. It lies to the south of the Clywedog Valley. There are two access points - one to the west via Bedwell Road and Sesswick Way, and one to the south-east via Pickhill to the B5130 Cross Lanes to Holt Road.

1.3 Project Description

Wrexham is a 5.7 megawatt (MWp) photovoltaic (PV) solar farm will sit on Land North-East Of Maelor Works, Cross Lanes, Wrexham, LL13 0UW. The solar farm consists of ground mounted solar panels, where each PV panel has a generation capacity of 560-580kW, arranged in east/west arrays across the site and angles to south for optimal generation and PV output.

The proposed solar park, although adjacent to an existing solar park, is operated and will be decommissioned separately.

The layout has been designed to retain the Second World War brick buildings, trees and hedgerows, along with additional planting and enhancements for biodiversity.

2 Decommissioning Plan

Wrexham Solar Farm is anticipated to operate for 40 years, however if electricity exports cease for 6 months, the applicant will need to take steps to cease operations and remove energy facilities, structures and equipment from the site. The solar panels and all other equipment removed from Wrexham Solar Farm, unless being reused or repurposed for another proposal, shall be recycled in accordance with all applicable legislation and procedures in effect at the time of decommissioning.

Further, decommissioning will include restoring the land to its pre-installed condition (i.e. the grass sward will be reinstated on completion of the removal of equipment).

The Decommissioning Plan will adhere with regulations and guidance applicable at the time, but is expected to include:

- An overview of the Project, decommissioning activities, and programme;
- Prior assessment of potential environmental impacts;
- Mitigation measures to prevent or reduce potential adverse impacts;
- Monitoring of effectiveness of mitigation measures; and
- Links to other complementary plans and procedures.

3 Decommissioning Programme

In total, the decommissioning of the Project is expected to take 24 months to complete.

Decommissioning will be assumed to not commence any earlier than July 2062, or within 6 months when the solar farm ceases to export electricity continuously. Decommissioning will happen within 40 years of the date of the first export to the electricity grid network, excluding the electricity which is exported during initial testing and commissioning.

4 Pre-commencement Activities

Prior to the decommissioning process the Applicant should seek guidance from a qualified ecologist to provide advice on how to manage any ecological issues that may come up through the decommissioning process.

A full ecological survey of the site will be required prior to removal of any infrastructure, which may include more detailed surveys (e.g. nesting birds, reptiles, great crested newts etc). Sufficient lead in time will be required to ensure that these surveys can be undertaken, particularly as they may be seasonally constrained. Surveys will begin in year 37 of the life of the project to enable the decommissioning programme to commence in year 38/39.

After the surveys being completed, a Decommissioning Environmental Management Plan (DEMP) will be prepared, which may include measures such as the removal of animals, manipulation of vegetation to disperse animals present or careful timing of works.

A Decommissioning Transport Management Plan (DTMP) will also be prepared and agreed with the LPA. This will likely be similar to the Construction Management Plan prepared for the construction of Wrexham Solar Farm, and in line with best practice at the time of the works to implement dust, noise and traffic control measures.

Working hours during the decommissioning phase would be between 08:00 and 18:00 Monday to Friday, 08:00 to 14:00 Saturday with no activities on Sunday or Bank/Public Holidays. This will be confirmed in the DTMP.

All works affecting trees should be undertaken in accordance with best practice tree protection measures.

To restore the land within the Project Site Boundary to its pre-construction condition, as far as practicable, at the end of operation Measures to be implemented include:

- Ensure the protection and conservation of soil resources;
- Maintain the physical properties of the soils through best practice;
- Provide on-Site reference on the management of soil resources for Site operators undertaking the works.

The electrical supply to the solar farm will need to be disconnected and made safe.

Demolition impacts from dust generating activities will be minimised through the use of best practice guidance and measures relevant at the time of decommissioning.

Works would be undertaken according to legislation, regulations and best practice that are current at the time of decommissioning.

5 Decommissioning Activities

5.1 Overview

The first step of decommissioning would be to make the site safe for work in accordance with the prevailing Environmental Legislation, Regulations, Standards and Guidance at the time.

Decommissioning activities will involve the following:

- PV module removal;
- Removal of decentralised string inverters, racking and piles
- PV component removal including substations and inverters;
- Removal of electrical wires;
- Removal of CCTV equipment;
- Removal of fencing;
- Removal of concrete slabs;
- Removal of access tracks;
- Site restoration introducing agricultural measures;
- Details of their destination in terms of recycling;
- Reporting procedures; and,
- Monitoring and records.

5.2 PV module removal

Solar panels will be separated from the mounting frames. Solar panels will be sent to a recycling centre on the basis of the commercial recycling operation's specifications or resold, if still operational.

5.3 Removal of decentralised string inverters, racking and piles

Decentralised string inverters which are located to the rear of strings of panels will be removed. All racking and piles material will be removed and broken down into manageable units, removed from site and sent to an approved recycler. In order, the decentralised string-inverters will be removed, followed by the racking and piles.

5.4 Component removal

Components on the solar farm including control cabinets, substations, transformer stations, other electronic components and internal cables will be removed.

During the operational phase, the components will be replaced when they reach the end of their lifecycle. Where they have been replaced and still have life at the end of the 37.5-year period, components can be reused and resold. If not, they will be disassembled/cut into more easily transportable sections for salvageable, recyclable, or disposable components (primary for the mounting frame and electrical cables) and provided to a commercial recycling operation.

Any construction compounds on the site will be removed following the decommissioning process.

5.5 Removal of electrical wires

The copper and aluminium electric wires may have a value for recycling. The DC wiring can be removed manually from the panels to the inverter. Underground wire in Wrexham Solar Farm will be removed where necessary. All wire will be sent to an approved recycling facility.

5.6 Removal of CCTV equipment

All wiring, cables and electrical interconnections will be disconnected. The CCTV cameras, towers, and associated infrastructure will be dismantled and removed.

5.7 Removal of fencing

All fencing material will be removed and broken down into manageable units, removed from site and sent to an approved recycler. Land will be made good where the fencing was installed.

5.8 Concrete slab removal

Concrete slabs used as equipment pads will be broken and removed. Clean concrete will be disposed off-site for recycling. The excavation will be backfilled with subsoils prior to dressing with topsoil.

5.9 Removal of access tracks

The last structures which are to be removed are the additional access tracks created to service the development and not part of the former use of the site.

The access tracks and buildings (outlined in grey on figure 1) associated with the former industrial use which were part of the existing site will not be removed as part of the decommissioning phase.

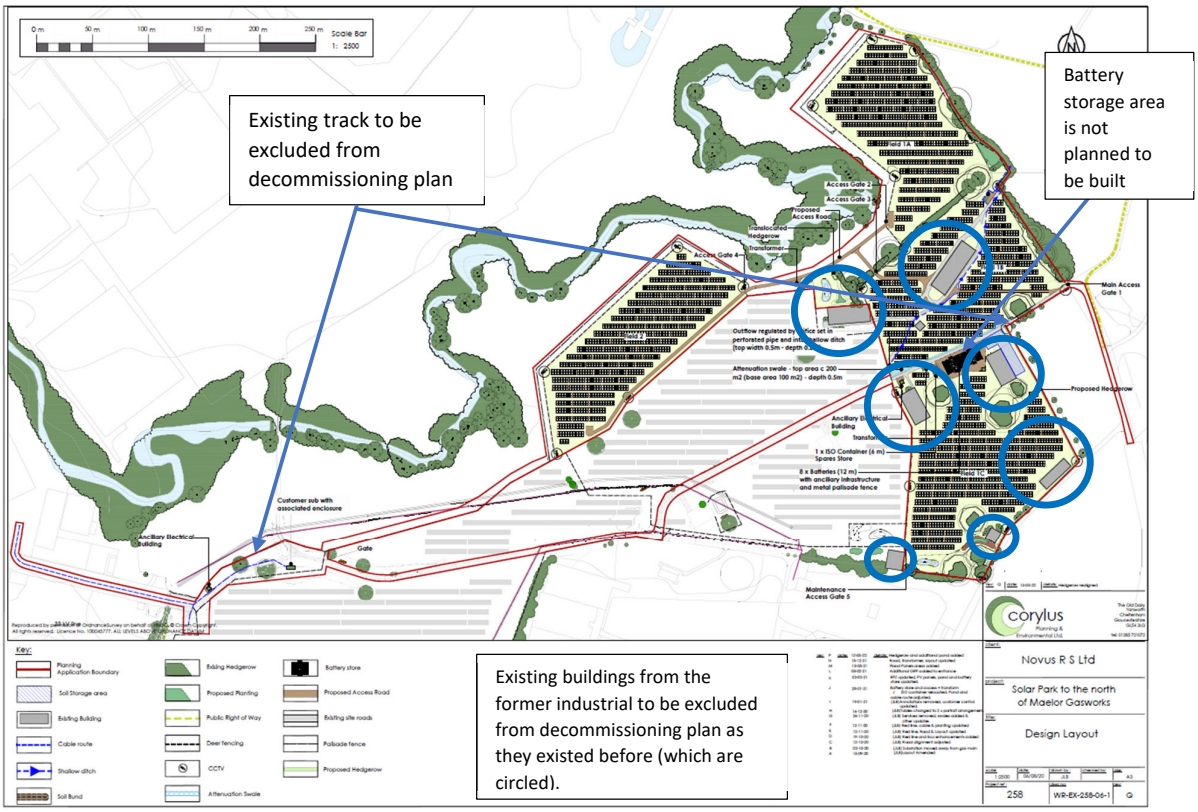


Figure 1: Design Layout WR-EX256-061, Rev Q as approved by P/2024/1601.

5.10 Site restoration process - agricultural measures

The former use of the site was agriculture. The site is to be restored so that grazing, silage and haylage can continue on-site after the decommissioning of the solar panels have taken place.

Areas of disturbed ground will be cultivated and prepared for re-seeding. Areas of the land that are identified as requiring further works to improve the soil structure will be identified and remedial works such as subsoiling carried out.

The affected areas will be inspected, thoroughly cleaned, and all construction-related debris removed.

The land will be reseeded with a suitable rye grass/clover mix.

5.11 Recycling and waste arrangements

Waste from the decommissioning of the solar farm would be disposed of responsibly and undertaken in alignment with the standards in place at the time of decommissioning.

All waste to be removed and taken to licensed waste facilities for recycling or disposal.

5.12 Reporting Procedures

The following information will be supplied as part of the processes to implement the decommissioning plan. Measures include:

- An organisation chart showing team roles, names, and responsibilities;
- Training requirements for relevant personnel on environmental topics;
- Information regarding on-site briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures;
- Measures to advise employees of changing circumstances as work progresses;
- Communication methods;
- Document control;
- Procedures for monitoring, inspections, and audits of Site operations;
- Risk assessments;
- A review of permits:
- Relevant waste disposal compliance;
- An assessment of environmental and ecological harm in the form of Ecological Compliance Audits; and,
- Environmental emergency procedures and documents to follow.

5.13 Monitoring and Records

Records will be kept for all initial, final and routine monitoring inspections of plant, ecological and environmental issues. The owner of the solar farm will coordinate all monitoring of the activities and appropriate records for the solar farm during the decommissioning phase.

These records will be stored in an agreed location on site and be available for internal and external monitoring as required. Record sheets will detail the date; location of inspection; frequency; findings; appropriate person(s) notified and identified actions as necessary by the environmental advisor.

The Contractors will designate an Environmental Manager who will be responsible for the implementation of the Decommissioning Plan. The Environmental Manager will be responsible for the overall management of environmental aspects on site, ensuring environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures identified are implemented. The Environmental Manager will oversee environmental monitoring onsite and carry out regular environmental site inspections, reporting and responding to any incidents or noncompliance. The Environmental Manager will liaise with the local planning authorities and NRW, as required.

The Environmental Manager will observe Site activities and report any deviations from the Decommissioning Plan in a logbook, along with the action taken and general conditions at the time. The Applicant will be informed by the contractor(s) of any deviations from the Decommissioning Plan as soon as possible following identification of such issues. The Environmental Manager would also act as contact with relevant local authorities and other regulatory agencies such as the Environment Agency.

During decommissioning, the Environmental Manager will conduct regular walkover inspections to ensure all requirements of the Decommissioning Plan are being met. Actions from these surveys will be documented on an Environmental Action Schedule for implementation. Records will include:

- Results of routine site inspections.
- Environmental surveys and investigations.
- Environmental Action Schedule.
- Environmental equipment test records.
- Licences and approvals.
- Corrective actions taken in response to incidents, breaches of the approved decommissioning plans or complaints received from a third party.

This individual will be notified as soon as it is safe to do so following an environmental incident or emergency. Incidents will be reported to the Environment Agency where necessary. Staff will be informed of this process and made aware that it is everyone's responsibility to call the emergency services, should this be needed.

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