Dean Moor
Solar Farm

Environmental Statement: Contents and Glossary

on behalf of **FVS Dean Moor Limited**

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Firma Energy

ib vogt

DEAN MOOR SOLAR FARM

CONTENTS AND GLOSSARY

PLANNING INSPECTORATE REFERENCE EN010155

PREPARED ON BEHALF OF FVS DEAN MOOR LIMITED

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, Regulation 5(2)(a)

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Preface

This Environmental Statement ('ES') has been prepared on behalf of FVS Dean Moor Limited (the 'Applicant') in relation to an application to be made to the Secretary of State for the Department for Energy Security and Net Zero ('DESNZ') under Section 37 of the Planning Act 2008 (as amended) ('PA 2008'), seeking a Development Consent Order ('DCO') for the Dean Moor Solar Farm ('the Proposed Development').

The Proposed Development is located within the administrative area of Cumberland Council (the 'Council').

A full set of the ES documents can also be provided on a USB drive for £15, or as a hard copy for £1000, on written request to the Applicant via post or email at the details below (reasonable postage charges may also apply).

Please send any responses, requests for copies of documents, or queries to:

- Email: info@deanmoorsolarfarm.com
- Online: https://www.deanmoorsolarfarm.com/contact-us

Environmental Statement – Table of Contents

Volume 1 – Non-Technical Summary

Volume 2 – Environmental Statement Chapters

Volume 2 – Environmental Statement Figures

1. Introduction

2. EIA Methodology

3. Site and Proposed Development Description

4. Alternatives and Design Evolution

5. Construction and Decommissioning Methodology and Phasing

No figures in chapter

6. Cultural Heritage

7. Landscape and Visual Impact

8. Biodiversity

9. Climate Change

10. Ground Conditions

11. Cumulative Effects and Summary

No figures in chapter

Volume 3 – Environmental Statement Appendices

1. Introduction

Appendix 1.1 Statement of Expertise

2. EIA Methodology

Appendix 2.1 EIA Scoping Report
Appendix 2.2 EIA Scoping Opinion
Appendix 2.3 Water Framework Directive Assessment
Appendix 2.4 Flood Risk Assessment and Outline Drainage Strategy
Appendix 2.5 Transport Statement
Appendix 2.6 Noise and Vibration Impact Assessment
Appendix 2.7 PEIR Chapter 10 Socio-Economics
Appendix 2.8 Agricultural Land Classification Report
Appendix 2.9 Stakeholder Meeting Minutes

3. Site and Proposed Development Description

Appendix 3.1 Outline Operational Management Plan

4. Alternatives and Design Evolution

No appendices for this chapter

5. Construction and Decommissioning Methodology and Phasing

Appendix 5.1 Outline Construction Environmental Management Plan
Appendix 5.2 Outline Construction Traffic Management Plan
Appendix 5.3 Outline Soil Management Plan
Appendix 5.4 Framework Decommissioning Management Plan

6. Cultural Heritage

Appendix 6.1 Historic Environment Desk-Based Assessment
Appendix 6.2 Geophysical Survey Report
Appendix 6.3 Archaeological Mitigation Strategy
Appendix 6.4 Stakeholder Engagement

7. Landscape and Visual Impact

Appendix 7.1 Landscape and Visual Methodology
Appendix 7.2 Schedule of Landscape Effects

8. Biodiversity

9. Climate Change

10. Ground Conditions

Glossary

Term	Definition
Access tracks	Internal access tracks will be required to facilitate construction and the movement of operations and maintenance vehicles around the Site. Where possible, these will follow existing farm tracks around the Site.
Additional mitigation	'Additional mitigation' measures are proposed, as necessary in each technical assessment, to reduce, avoid, or offset the potential negative effects of the Proposed Development, for example through various management plans such as a Construction Environment Management Plan which will includes measures that must be followed during construction of the Proposed Development to mitigate the impacts of construction.
Agricultural Land Classification (ALC)	A means of assessing the quality of farmland. Its assessment is based on physical limitations of the land, such as climate, site characteristics (for example gradient) and soil. The assessment gives an indication of the versatility and expected yield of the land. The system classifies agricultural land in 5 grades. The best and most versatile land is classified as 1, 2, and 3a.
Allerdale Borough Council ('ABC')	Allerdale Borough Council merged with Copeland Borough Council and Carlisle City Council to become Cumberland Council, which is now the administrative authority within which the Site is located.
Ancient woodland	Ancient woodland refers to woodland which has existed continuously since 1600 AD and is an important habitat.
Applicant	FVS Dean Moor Limited (the 'Applicant') is a joint-venture partnership between two renewable energy development specialists: Firma Energy ('Firma Energy') and ib vogt ('IBV').
Archaeological Management Strategy ('AMS')	The Archaeological Mitigation Strategy ('AMS') details the agreed arrangements with regards to further archaeological fieldwork to be undertaken the pre-commencement and construction phases.
Area A	Land south of Branthwaite Road (approximately 40.2ha).
Area B	Land south of Branthwaite Road and north of Gilgarran Road (approximately 19.9ha).
Area C	Land south of Gilgarran Road and north of Dean Cross Road (approximately 203ha).
Area D	Land connecting Areas A and B, including Potato Pot Wind Farm (the 'Wind Farm'), Gilgarran Road between Areas B and C, and Branthwaite Edge Road (approximately 13.4ha).
Baseline	Existing environmental conditions which are described in the Environmental Statement.
Best and Most Versatile Agricultural Land	Land in grades 1, 2 and 3a of the Agricultural Land Classification.

Term	Definition
Biodiversity	The biological diversity of the earth's living resources. The variety and abundance of species, their genetic composition, and the natural communities, ecosystems, and landscapes in which they occur.
Biodiversity Net Gain (BNG)	Biodiversity Net Gain is an approach to development that makes sure habitats for wildlife are left in a measurably better state than they were before the development.
Central Inverter-Transformer Units	Central inverter-transformer units would be located throughout the Site and housed within prefabricated metal containers that are typically finished in a matte colour limited to white, grey, green, brown, or blue, or similar.
Climate Change	Changes in long term climate trends driven by human activity.
Construction Compound	Secure temporary construction compounds will be used to store materials and provide welfare facilities during the construction period. There will be up to five temporary construction compounds consisting of up to two Primary Compounds and up to three Secondary Compounds, to be located immediately adjacent to Site access points.
Construction Environmental Management Plan ('CEMP')	A specific plan developed to ensure that appropriate environmental management practices are followed during the construction phase of the Proposed Development. An Outline Construction Environmental Management Plan (OCEMP) (ES Appendix 5.1) outlines the holistic site and environmental management of matters beyond construction traffic (for example: ecology, arboriculture, water management, noise, lighting, waste management)
Construction phase	The earliest construction of the Proposed Development could commence is 2026, and for the purpose of the ES assessment, the construction phase has been assessed as spanning 18 months.
Construction Traffic Management Plan ('CTMP')	The Construction Traffic Management Plan sets out the management of construction vehicles and worker travel associated with the construction period of the Proposed Development. An Outline Construction Traffic Management Plan (OCTMP) (ES Appendix 5.2) outlines measures for safe access / egress and traffic management to avoid or mitigate impact on the LRN.
Construction Worker Travel Plan ('CWTP')	A framework Construction Worker Travel Plan has been developed as part of the OCTMP to demonstrate sufficient measures can be put in place to minimise and manage the environmental and traffic impacts from the construction phase of the Proposed Development.
County Wildlife Site ('CWS')	A County Wildlife Site is a non-statutory designated site for ecological value at County-level significance. Dean Moor County Wildlife Site ('CWS') is partially located within the Site and is shown on the Non-Statutory Sites and Notable Habitats figure. This CWS is designated for acidic moorland habitats.
Colingate Road	The name locally used for the road referred to in the ES as 'Gilgarran Road'.
Cumberland Council ('The Council')	The Site is situated within the administrative area of Cumberland Council.

Term	Definition
Cumbria Wildlife Trust ('CWT')	A wildlife conservation trust covering Cumbria which runs nature reserves across Cumbria.
Cumulative Schemes	Projects which have been identified for the assessment of likely significant cumulative effects on the environment for the purposes of this ES. The location of these projects is shown in Figure 2.1.
Customer substation	The customer substation building includes the switchgear that receives electricity from the inverters-transformers before transferring it to the DNO Substation via underground electrical cables.
Commercial Operations Date ('COD')	The start of the solar PV generating station's commercial operations.
Control Building	The Proposed Development will include one Control Building which will include monitoring equipment and metering for the Proposed Development.
Decommissioning Phase	It is anticipated that at the end of the 40-year operational lifespan, the Proposed Development including solar PV modules, mounting structures, cabling and ancillary buildings will be decommissioned, dismantled, and removed, and the Site reinstated and returned to the landowner. The decommissioning phase has been assessed in the ES to last 12 months.
Decommissioning Management Plan ('DMP')	A Decommissioning Management Plan suite will control the process of decommissioning and will be secured as a DCO Requirement with further detail on how this will be provided set out in the FDMP (Appendix 5.4).
Department for Energy Security and Net Zero ('DESNZ')	The DCO application will be made to the Secretary of State for the Department for Energy Security and Net Zero ('DESNZ').
Development Consent Order ('DCO')	Development Consent Orders are the means of gaining consent for Nationally Significant Infrastructure Projects, pursuant to the Planning Act 2008. A Development Consent Order is the order which grants development consent when an application is made to the Secretary of State.
Development Consent Order Requirement ('DCO Requirement')	Schedule 2 of the draft DCO includes DCO Requirements which ensure the full details of plans such as the OCEMP are produced prior to the relevant phase.
Distribution Network Operator ('DNO')	The Distribution Network Operator is Electricity Northwest ('ENW').
District Network Operator ('DNO') Substation	A DNO Substation Building up to 6.5m height is required to facilitate the connection to the grid. The substation would be an ENW asset.
Electricity North West Limited ('ENW')	The Distribution Network Operator ('DNO').

Term	Definition
Embedded mitigation	'Embedded mitigation' refers to measures which are an inherent part of the design of the Proposed Development, which are secured through the 'Work Plans' through the DCO, for example ensuring that key habitat features are unaffected by the layout of the Proposed Development.
Environment Agency ('EA')	An executive non-departmental government body working with responsibilities to protect and improve the environment, including flood risk management.
Environmental Health Officer ('EHO')	A function of the Council responsible for carrying out measures to protect public health and enforcement of legislation related to environmental health and safety hazards.
Environmental Impact Assessment ('EIA')	The purpose of an EIA is to identify the likely significant environmental effects of the Proposed Development.
Environmental Impact Assessment Regulations ('EIA Regulations')	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 as amended.
Environmental Statement ('ES')	The EIA process continues up to submission of the DCO application and has been reported in full in the Environmental Statement ('ES').
Firma Energy Limited ('Firma Energy')	Firma Energy, founded in 2021, is an independent management-owned energy development company based in Leeds. Firma Energy focuses on creating and delivering renewable energy developments with environmental and social benefits.
Glint	A momentary flash of bright light typically received by moving receptors or from moving reflectors.
Glare	A continuous source of bright light typically received by static receptors or from large reflective surfaces.
Grid Connection Infrastructure	The Grid Connection Infrastructure comprises the infrastructure which supports the POC to the DNO grid, which is the existing pylon within Area C, and will be located within Work No. 2 – Grid Connection Infrastructure.
Heavy Goods Vehicle ('HGV')	Lorries for materials/component deliveries e.g. PV panels.
Ib Vogt Limited ('IBV')	Ib Vogt Limited is a leading utility-scale solar development platform with a global footprint and a 20-year track record of solar farm design and engineering, construction, and operational site management.
Institute of Environmental Management and Assessment ('IEMA')	The Institute of Environmental Management and Assessment ('IEMA') is a professional body for environmental practitioners.
Inter-project effects	Inter-project effects are defined in paragraph 5(e) of Schedule 4 to the EIA Regulations as:

Term	Definition
	'The cumulation of effects with other existing and/ or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.'
Inverters	Inverters convert direct current ('DC') generated by the solar PV panels into alternating current ('AC').
Lake District National Park ('LDNP')	The Lake District National Park is designated as a National Park and was further designated as a World Heritage Site ('WHS') in 2018.
Lake District National Park Authority ('LDNPA')	The Lake District National Park Authority governs the Lake District in order to conserve and enhance its natural beauty.
Landscape Environmental Management Plan ('LEMP')	The LEMP will provide details of planting and enhancements and will set out how these measures will be implemented and maintained. An Outline Landscape Environmental Management Plan (OLEMP) has been appended to the ES.
Landscape and Visual Impact Assessment (LVIA)	A method for assessing potential impacts on the landscape based on IEMA's *'Guidelines for Landscape and Visual Impact Assessment'.*
Large Irregular Stone Circle and Round Cairn	The Large Irregular Stone Circle and a Round Cairn of Dean Moor Scheduled Monument ('SM') is an irregular stone circle with 15 Sandstone monoliths, only seven of which remain standing in England. As one of only 45 examples of known large irregular circles in England, the Stone Circle and Cairn has high significance as a rare monument type with high evidential value and archaeological interest.
Large Goods Vehicles ('LGV')	Vans and small flatbeds for plant maintenance, PPE, fixings, small components, couriers, and canteen supplies.
Lead Local Flood Authority ('LLFA')	The function of the Council responsible for managing local flood risk.
Listed buildings (LB)	Buildings of special architectural or historic interest with legal protection.
Local Road Network ('LRN')	The portion of the road network that is managed by local authorities.
Mega-watt ('MW')	A unit of measurement for electrical power. One Mega-watt is equal to one million watts.
Mounting Structure	The structure that is fixed to the ground and onto which the PV modules are attached.
Mitigation	Measures including any process, activity or design to avoid, reduce, or remedy for negative environmental impacts or effects of a development.
National Planning Policy	The National Planning Policy Framework ('NPPF') sets out the Government's economic, environmental, and social planning policies for England.

Term	Definition
Framework ('NPPF')	
National Policy Statements ('NPS')	The National Policy Statements set out the Government's objectives for the development of nationally significant infrastructure projects. Each NPS covers a different sector of nationally significant infrastructure.
Nationally Significant Infrastructure Project ('NSIP')	Large scale developments which require development consent pursuant to the Planning Act 2008.
Non-Technical Summary ('NTS')	The Non-Technical Summary is a summary of the ES in non-technical language.
Operational phase	The Proposed Development is currently proposed to have an operational lifespan of up to 40 years for the purposes of the assessments in the ES.
Operation and Maintenance ('O&M') Units	Operation and Maintenance (O&M) units will be provided across Work No. 3 – Associated Works. The O&M units would be 3.6m in height with foundations and are likely to be finished in a standard pale grey or off-white colour.
Opencast coal mine	The land in the north of the Site (Areas A and B, shown on Figure 3.1) was historically part of an opencast coal mine that was operational between the late 1980s and early 1990s which is a surface mining technique that extracts coal from an open pit in the ground. Opencast mining ended in 1993, followed by backfilling and restoration.
Order Limits	The Proposed Development will be within the 'Order Limits' (the land shown on the Works Plans **[REF: 2.3]** within which the Proposed Development can be carried out). The extent of the Site is the same as the Order Limits, both shown on ES Figure 1.1.
Ordinary Watercourse	A watercourse which drains away water which does not form part of a Main River.
Overhead Line ('OHL')	An Overhead Line is a cable used in the transmission and distribution of electrical energy. Existing 132kV OHL run across the north of Area C. There are various sections of 11kV within the southern and northern parts of the Site.
Parameter Plan	The Parameter Plan (ES Figure 3.4) represents the parameters, such as the extent of the developable area of Solar PV infrastructure, which have been used to assess the likely significant effects of the Proposed Development for the purposes of this ES. The Parameter Plan maps the Work Numbers which represents the maximum geographical parameters of where the infrastructure listed under each 'Work' could be sited, as well as features within the Site such as watercourses.
Peat	Peat is a type of soil which forms under waterlogged conditions from dead plant material and accumulates where rainfall is high and evapotranspiration losses are low.
Perimeter Fencing	Perimeter fencing (up to 2.4m high) would be installed around the boundaries of the solar farm. It is proposed that 'deer fencing' with wooden fence poles and galvanised high tensile steel wire between would be used.

Term	Definition
Planning Act (PA 2008)	The Proposed Development is an NSIP and so falls under the Planning Act 2008 (PA 2008) regime.
Planning Inspectorate	The Planning Inspectorate deals with applications for Nationally Significant Infrastructure Projects ('NSIPs').
Point of Connection ('POC') Compound	The POC Compound comprises external electrical equipment and ancillary infrastructure within a security fence.
Potato Pot Wind Farm (the 'Wind Farm')	There is an existing operational wind farm, Potato Pot Wind Farm ('the Wind Farm') (planning ref. 2/2012/0594), which consists of three wind turbines and a control and services building located within Area D, between Areas A and B.
Power Conversion System ('PCS') units	Power Conversion System ('PCS') units refer to Solar Inverter-Transformers.
Preliminary Environmental Information Report ('PEIR')	A report that provides preliminary environmental information in accordance with Regulation 12 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand likely significant environmental effects.
Principal Contractor	The Principal Contractor is defined as per the Construction, Design and Management ('CDM') Regulations as '*the contractor with control over the construction phase of a project involving more than one contractor*.'
Proposed Development	The Proposed Development comprises the construction, operation, and decommissioning of a solar photovoltaic (PV) energy generating station with a total capacity exceeding 50 Megawatts (MW) comprising solar PV arrays, grid connection infrastructure, associated infrastructure, and green infrastructure.
Public Right of Way ('PRoW')	Comprised of Footpaths (FP) and Bridleways (BW) as defined by Cumberland Council.
Receptor	A component of the natural or man-made environment that is affected by an impact.
Residual Effects	Residual effects represent the overall likely significant effects of the Proposed Development on the environment having taken into account additional mitigation measures.
Root Protection Areas ('RPA')	An area of ground under the tree, calculated to avoid damage from development to a tree's rooting system.
Scheduled Monument	"Nationally important" archaeological site or historic building given protection against unauthorised change.
Scoping Opinion	The Scoping Opinion outlines the views of the Planning Inspectorate (on behalf of the Secretary of State) on the proposed scope of the EIA. The Scoping Opinion was adopted in September 2023.
Secondary mitigation	Actions that require further activity to achieve a particular outcome, secured for example through development consent requirements or

Term	Definition
	section 106 obligations, such as lighting limits that will be subject to the submission of a detailed lighting layout for approval.
Secretary of State ('SoS')	The Secretary of State for the Department for Energy Security and Net Zero (DESNZ).
Shadow Habitats Regulations Assessment ('sHRA')	To determine the likely significant effects on European sites a sHRA (Appendix 8.7) accompanies Chapter 8 – Biodiversity. It details the presence of the European sites, their qualifying features and conservations objectives, and the likely significant effects which may occur as a result of the Proposed Development.
Site	Approximately 276.5ha of land located between the villages of Gilgarran and Branthwaite in West Cumbria
Site Manager	The Site Manager supervises and coordinates the day-to-day activities and progress on a construction site.
Site of Special Scientific Interest ('SSSI')	A site which is designated by Natural England for its biological or geological importance.
Soil Management Plan (SMP)	This plan supports the conservation of soil resources and details the methods of soil handling to be implemented to for the benefit of soil quality and quantity. The OSMP (Appendix 5.3) provides an outline of the measures which will be implemented during the construction phase to protect the soil as a resource.
Solar Farm	An electricity generating station comprising solar PV modules.
Solar Photovoltaic ('PV') Array	Solar PV arrays comprise solar panels placed on a mounting structure framework and arranged in rows.
Special Area of Conservation ('SAC')	Sites that have been adopted by the European Commission which protects one or more special habitats and/or species.
Standalone transformer	A standalone transformer unit is typically smaller than combined central inverter-transformer units but otherwise have the same characteristics as a containerised solution.
Strategic Road Network ('SRN')	The network of motorways and major roads which is managed by National Highways.
Substation	A DNO Substation will be required to facilitate connection to the grid. The substation would be an ENW asset.
Sustainable Drainage System (SuDS)	Management practices and control structures designed to drain surface water in a more sustainable way, mimicking natural processes. The Proposed Development utilises SuDS whenever possible, and the ODS focusses on the use of natural 'rural' drainage features in preference to more 'engineered' SuDS measures typically employed in urban locations.
Switchgear	The switchgear receives electricity from the inverters-transformers before transferring it to the DNO Substation via underground electrical cables.

Term	Definition
Tertiary (Additional) mitigation	Actions that would occur regardless of the EIA, including those undertaken to meet other existing legislative requirements, or actions that are standard practice to manage commonly occurring environmental effects
Thief Gill	An ordinary watercourse which flows through the Site.
Transformers	Transformers convert low voltage output from the inverters to high voltage suitable for feeding into the local grid.
View Locations ('VLs')	The Applicant has agreed view locations with the Council and LDNPA. They have been selected to inform visual effects from a number of sensitive receptors.
Visual effects	The assessment of visual effects considers how the Proposed Development will affect the views available to people and their visual amenity.
Work Plans	The ES has been undertaken based on the maximum extents of each of the Work Numbers described in Schedule 1 of the DCO, as shown (and therefore secured) on the Work Plans.
Written Scheme of Investigation	A Written Scheme of Investigation outlines known and potential archaeological features and deposits or built heritage elements on a site and suggests a structure for exploring them using the latest, most appropriate and cost-effective archaeological techniques.
Zone of Theoretical Visibility ('ZTV')	A map, usually digitally produced, showing areas of land from which the Proposed Development is theoretically visible.