MWP

Planning Statement

Mill Farm 110kV Substation

Mill Farm Solar Project Ltd.

April 2024

Contents

Figures

Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Status
23991	6003	P01	April 2024	COC	AR/JOC	AR	FINAL

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1. Introduction

Malachy Walsh and Partners (MWP) on behalf of Mill Farm Solar Project Ltd. wish to apply to An Bord Pleanála for permission to construct a 110kV loop in Substation (hereafter referred to as the 'Proposed Development') to connect the consented Mill Farm Solar Project to the National Grid, under section 182A of the Planning and Development Act 2000 (as amended).

The Mill Farm Solar Project was granted planning permission by Meath County Council on the 14th of February 2023 (Planning Ref- 22/1044). On the 2nd of February 2024, the board concluded the pre-application process (ABP-317988-23) and issued its opinion that the Proposed Development would be strategic infrastructure and that an application for approval should be made under 182A of the Planning and Development Act 2000, as amended.

This report provides a concise overview of the planning merits of the Proposed Development. The purpose of this planning report is to provide details which will assist An Bord Pleanála when determining whether the Proposed Development is in accordance with the proper planning and sustainable development of the area, and accordingly whether planning permission should be granted for the Proposed Development. The report is set out as follows:

- Section 2: Application Site- This section provides a description of the site, its context, and the relevant planning history.
- Section 3: Planning History- This section sets out the relevant planning history.
- Section 4: Description of Proposed Development- This section describes the proposal.
- Section 5: Planning Policy Framework- This section outlines the national, regional and local planning policies relevant to the application site and Proposed Development.
- Section 6: Planning Assessment- This section provides an assessment of the principle of development and other relevant considerations.
- Section 7: Conclusion - This section summarises the key points set out in the report.

This report should be read in conjunction with the suite of information lodged to the Board.

2. Application Site

The Proposed Development site is located adjacent to the permitted Mill farm Solar Project site located in the townland of Ricetown, Co. Meath (see **Figure.1**). The neighbouring townlands include Stokesquarter, Painestown, Killary, and the nearest villages are Lobinstown (2km north-east) and Castletown K.P. (2.6km southwest), in Navan, Co. Meath. The nearest large towns are Navan (12km South) and Kells (14.5km southwest) in Co. Meath, Ardee (12km north-east) and Drogheda (22.5km south-east) in Co. Louth. Access to the Proposed Development site is from an existing access point via the L1604, which connects to the N52, approximately 1km the northwest.

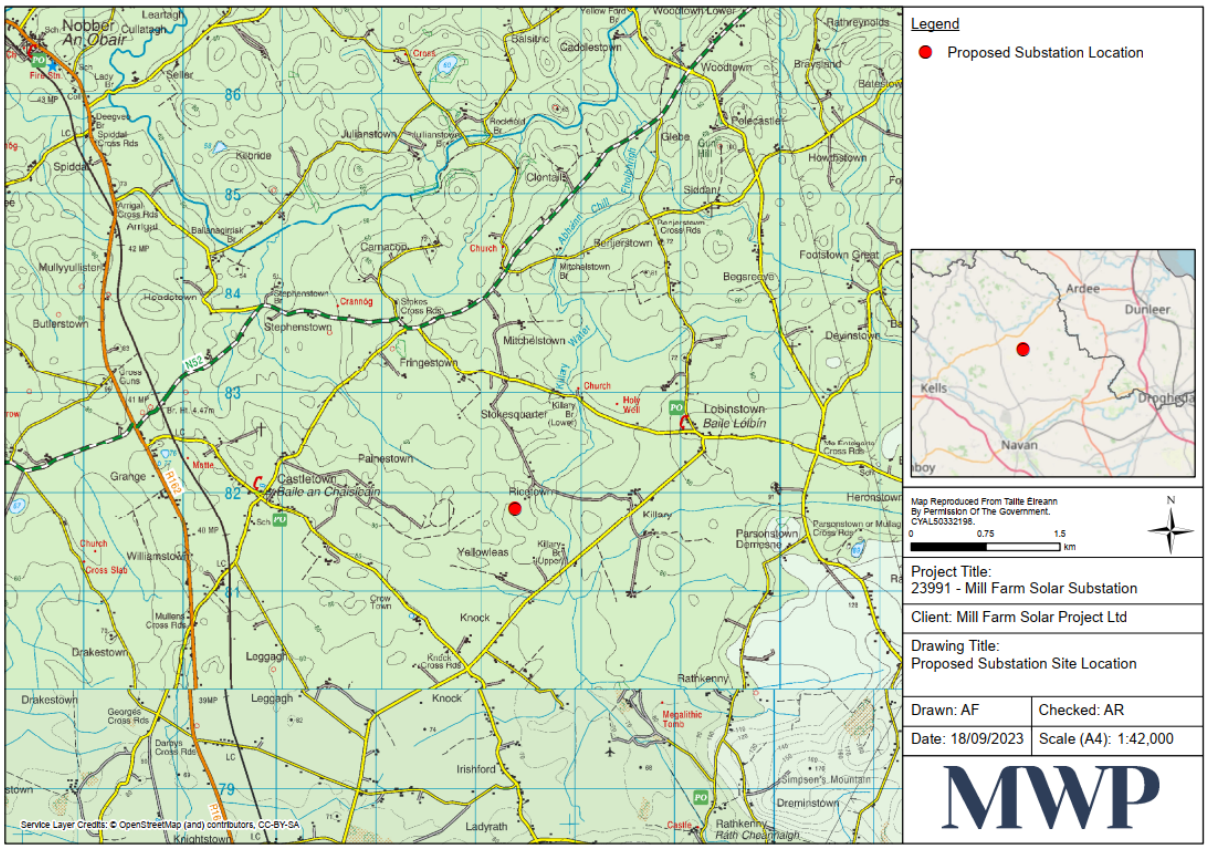

Figure 1- Site Location

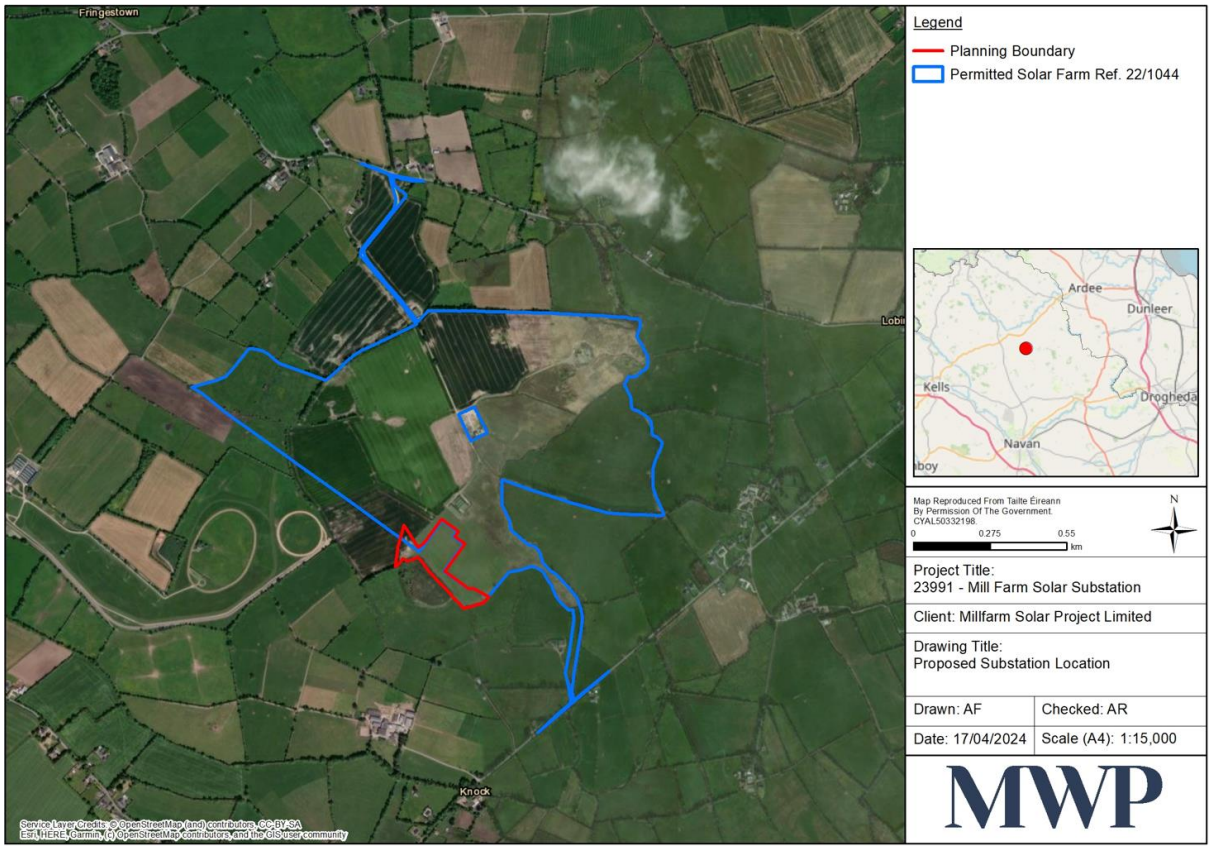

Figure 2- Site location in the context of permitted Solar Farm development

3. Planning History

Planning Ref.	Description	Location	Planning Authority Decision
SA20181	a sand and gravel pit with associated processing on 5.29 ha of which approximately 4 ha will be excavated and a concrete batching processing plant with associated works on .64 ha separated by an internal haul road, with the application including screening and washing, mobile crushing of raw materials, silt ponds, topsoil and overburden storage area, screening mound, internal haul road linking the pit and concrete batching plant site, restoration to agricultral lands, concrete batching plant and access via laneway to Lobinstown Road	Ricetown Lobinstown Co Meath	Granted with Conditions by Meath County Council on 24/04/2003
sa60691	Two pig finishing slatted units (total floor area of approximately 1850m2) with the capacity for 1950 no. pig places, reduced level excavations, septic tank and percolation area, two feed storage silos, vehicular entrance, hard surfaces for service vehicles, sinking of a well and construction of a pumphouse and all associated site works	Ricetown, Lobinstown, Co Meath	Refused by Meath County Council on 22/02/2007
22/1044	The development will consist of permission for a period of 10 years to construct and complete a Solar PV development with a total site area of circa 97.05 hectares, to include solar panels mounted on steel support on steel support structures, associated cabling and ducting, 12 No. Transformers, 1 No. Temporary Construction Compound, 1 No. Storage Container, maintenance tracks, perimeter fencing and gates, 61 No. CCTV, 4 No. Weather Stations, 3 No. Bunds associated landscaping and ancillary works, with an operational life of 40 years. The application is accompanied by a Natura Impact Statement (NIS). Significant further information/revised plans submitted on this application	Stokesquarter, Painestown, Killary, Ricetown, Castletown K.P., Navan, Co. Meath	Granted with conditions by Meath County Council on 14/02/2023

Table 1- Planning History

4. Project Description

It is proposed to construct a 110kV loop-in substation and associated works in the townland of Ricetown, County Meath to connect the permitted Mill Farm Solar Project to the National Grid.

The proposed project will comprise:

- A 110 kilovolt (kV) Air Insulated Switchgear (AIS) loop-in substation with associated compound, including control and operational buildings, electrical plant, equipment, cabling, lighting, CCTV, lightening masts, drainage infrastructure, security palisade fencing, and all associated and ancillary works necessary to facilitate the development.
- Erection of 2 no. overhead line end masts (c. 20m high) and 2 no. lattice gantries (c. 16m high) and associated overhead cabling to enable a loop-in/loop-out grid connection to National grid via the existing the Meath Hill-Gorman 110kV overhead powerlines located above the site.

The works will include site drainage and permanent signage associated with the new construction. The road layout for the proposed project makes use of the existing onsite access road and tracks, associated with the adjacent permitted solar farm development, where possible. The Proposed Development is compatible and does not in any way impede or alter the permitted Mill Farm Solar Project.

4.1 Proposed 110kV Substation Compound

The development will comprise the construction of a 1 No. 110kV onsite Eirgrid substation with associated electrical plant, electrical equipment, security palisade fencing, an IPP building and a transformer.

The overall compound will have an area of c.11,572m2 divided into two adjoining sections: an EirGrid section (c.9,262m2 in area) and an IPP (Independent Power Producer) section (c.2,310m2 in area), each of which are enclosed within a 2.6m high palisade fence. An additional outer concrete post and rail fence (1.4m in height) will be installed around the perimeter of the EirGrid compound.

Each section will contain a control building and an outdoor electrical yard including electrical equipment such as electrical pylons, over and underground ducting & cables, busbars, disconnects, breakers, sealing ends, lightning and lighting masts. The IPP section will also contain 1 No. bunded transformer with a back up emergency diesel generator and associated diesel storage tank also located within the bund. Both buildings will be a block built single storey building approximately 6.5m in height, with pitched roof and an external blockwork and plastered finish.

The overall substation compound will consist of a 50mm compound stone finish. The max height of the substation is 8.55m. 10 No. Lightning masts of 18m high will be erected within the compound.

4.1.1 Overhead loop-in Grid Connection

The electrical connection required from the proposed substation development will be facilitated by Overhead 110kV Loop-in Interface Masts. The erection of 2 No. Over Head Line (OHL) End Mast structures (c. 20m high) are required under the existing Meath Hill-Gorman 110kV 110kV OHL. There is also a requirement for the installation of 2 No. lattice gantries (c. 16m high).

The existing Overhead line will be terminated and 2 new towers will be erected to create 2 new OHL circuits. The new interface mast structure locations are to be selected based on ground surveys, ground profiles, allowable

angles and ruling span checks. A foundation is excavated for each tower location and the placement of excavation material is temporarily stored in designated deposition areas. Any excess excavation material will be utilised as berms and for landscaping purposes on the adjacent permitted solar farm. Reinforcing bars are placed into each excavation and the body of each tower assembled adjacent to the excavation. Concrete is poured directly into each excavation and allowed to cure until a preformed metal panel is set in place. The foundations are then backfilled individually. At this stage the existing OHL is de-energized and construction of the 2 towers take place. An earth mat is laid and is a requirement for the electrical connection of the tower. A hardstand area is made available for the use of a crane to guide and position each section of the towers together. Once all sections of the towers are bolted securely the conductor can be centred and installed. All other associated equipment such as down dropper conductors and shackles are positioned before the electrical circuit can be tested in both directions to confirm OHL is re-energised.

4.2 Drainage

Foul sewage from the temporary facilities will be routed to covered precast concrete watertight $5m^3$ tanks designed for receiving and storing sewage with no outlet. The tanks will be sized to suit the expected use and will be installed in a location remote from water courses. Contents and residues will be regularly emptied by a competent operator for safe disposal to an approved treatment works.

Surface water runoff from the roofs of the substation buildings, and hard-surfaced areas within the electrical yard, including areas where a risk of a contaminant leak or spill may be present (such as the transformer bund), will be collected in a series of filter drains, roof guttering and downpipes and routed to an underground gravity drainage network. All runoff collected in the stormwater sewer network will pass through an oil/petrol Interceptor prior to discharging to an attenuation unit on the north-eastern side of the compound. The attenuation unit will provide attenuation of the increased volumes of surface water runoff generated from the hard surfaces of the development when compared to the current greenfield condition. The attenuated surface water runoff is then proposed to overflow at a controlled rate equal to the greenfield runoff rate to an existing vegetated land drain on the southern side of the compound.

4.3 Construction Compound

A suitably surfaced contractor's temporary construction compound and laydown area will be provided for the duration of the site works on the permitted adjacent Solar Farm. The construction compound will consist of temporary site offices, equipment storage and construction staff welfare facilities, as well as car parking areas for staff and visitors. A potable water supply will be provided by a water tanker.

4.3.1 Construction Overview

The project involves the following works:

- Pre-commencement activities including site investigation work and pre-construction surveys.
- Site preparation and installation of drainage systems.
- Bulk earthworks for formation of substation compound base.
- Substation compound base and equipment foundations.
- Cable trenching and cable laying.
- Construction of control building and installation of equipment within compound.

- Complete site works: security fencing, gates, signage, lighting.
- Demobilise offices and tidy up site.

4.3.2 Construction Duration

The construction of the proposed substation is estimated to be completed over a period of 14-18 months in combination with the other permitted elements of the Solar Farm granted under Meath County Council Planning Reference 221044.

Construction working hours will be:

7:00am – 7:00pm (Monday – Friday inclusive)

8:00am – 2:00pm (Saturday)

There will be a requirement to excavate approximately 7,000m^3 of clean, natural topsoil and subsoil all subject to detailed site investigation report. This material will be reused, where feasible, to create berms and used for landscaping on the adjacent permitted solar farm site. Excess clean soil material will be deposited permanently in 2 No. soil deposition areas (1600m2) located adjacent to the western boundary of the site.

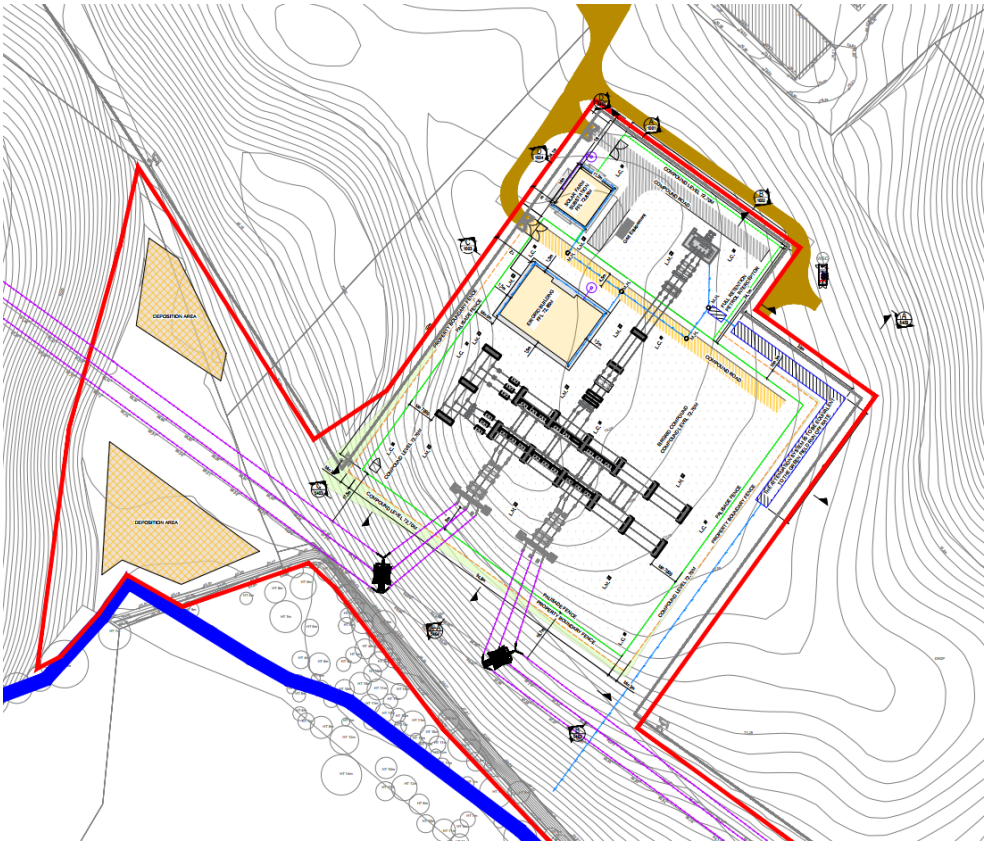

Figure 3- Proposed Site Layout

5. Planning Policy Framework

5.1 National Planning Policy

5.1.1 National Planning Framework

National Planning Framework (NPF) sets the vision and strategy for the development of the country to 2040. It recognises the need to move toward a low carbon and climate resilient society as set out in NSO 8 (Transition to Sustainable Energy). It is an action of the NPF under NSO no. 8 to "reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres"

The plan also promotes renewable energy uses and generation in appropriate locations (NPO 55) and emphasises that rural areas have a strong role to play in securing a sustainable renewable energy supply (NPO 23). It seeks to harness the country's renewable energy potential, achieve a transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, and promote new energy systems and transmission grids.

5.1.2 National Development Plan 2021-2030

As part of Project Ireland 2040 the National Development Plan sets out the Government's over-arching investment strategy and budget for the period 2021-2030. Chapter 13, NSO 8 focuses on the need to transition to a Climate-Neutral and Climate-Resilient Society. The plan highlights the need for 80% of Ireland's electricity to be produced from a combination of onshore and offshore renewable sources by 2030, in order to reduce the countries emissions. In order for this to be achieved, it will require a coordinated programme of investment in

- Grid-scale renewable electricity generation and storage;
- An expanded and strengthened electricity transmission and distribution network;
- Conventional electricity generation capacity to support the operation of the electricity system
- Provide security of supply for when variable generation (wind/solar) is not sufficient to meet demand

5.1.3 National Mitigation Plan 2027

It represents an initial step to set Ireland on a pathway to achieve the deep decarbonisation in line with Government policy objectives by mid-century, recognising that climate change is a key challenge. It includes a range of mitigation measures and actions to decarbonise the electricity generation sector and to prepare for the EU renewable energy targets that Ireland will take on for 2030. The plan recognises the importance of facilitating the integration of renewable energy on to the grid and how it can aid in accelerating the low carbon transmission.

5.1.4 Irelands Transmission to a Low Carbon Energy Future 2015-2030

The White paper on Energy policy published by the Department of Communications, Energy and Natural Resources in December 2015 sets out a vision to reduce greenhouse gas (GHG) emissions by 80% and 90% compared to 1990 levels by 2050, falling to zero or below by 2100. It states that as new energy solutions such as

bioenergy, solar photovoltaic and offshore wind mature and become more cost effective and will be included in the renewable energy mix. The policy document recognises that Ireland has great potential to increase energy security in meeting renewable energy targets.

5.1.5 Climate Action Plan 2024

The Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan 2019. This plan is the first to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and following the introduction, in 2022, of economy-wide carbon budgets and sectoral emissions ceilings.

The plan implements the carbon budgets and sectoral emissions ceilings and sets out a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050, as committed to in the Programme for Government. One of the most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030. In order for this to be achieved the plan recognises the need to develop the onshore grid to support renewable energy targets.

Section '12.1.4 Measures to meet the Challenge '*In line with transposing the revised Renewable Energy Directive, which entered into force in November 2023, ensure that the permit-granting procedure, the planning, construction and operation of renewable energy plants, the connection of such plants to the grid, the related grid itself, and storage assets are presumed as being in the overriding public interest*'.

5.1.6 Ireland's Grid Development Strategy 2017

This provides a strategic overview for the development of the electricity transmission system. It confirmed the need for investment in the electricity transmission system. All practical technology solutions will be considered with a strategy of optimising the existing grid so as to minimise grid infrastructure.

5.2 Regional Policy

5.2.1 Eastern Midlands Regional Spatial and Economic Strategy 2019-2031

Eastern and Midland Regional Assembly was established on 1st January 2015 and is responsible for the preparation and implementation of a Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region. The RSES for this Region came into effect on the 28th of June 2019. The primary aim of the RSES is to implement Project Ireland 2040 - the National Planning Framework.

The Plan recognises that *"Developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewable generation and also to facilitate future growth in electricity demand. These developments will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the Region is to attract high technology industries that depend on a reliable, high quality, electricity supply".*

Supportive Regional Policy Objectives include:

- RPO 10.20: Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This Includes the

delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.

- RPO 10.22: Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/ distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people, including:
    - Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.

5.3 Local Policy

5.3.1 Meath County Development Plan 2021-2027

The Meath County Development Plan 2021-2027 was adopted on the 3rd November 2021 and sets the overall strategy for the planning and sustainable development within the administration boundaries for County Meath. The Plan has an overarching role in progressing a sustainable energy future for the County by recognising the central role of land use planning in promoting a low carbon society and mitigating the impacts of climate change.

The Council recognise the importance of energy infrastructure in facilitating the connection of renewable energy to the National Grid. Relevant policy objectives in the County Development are listed as follows:

- INF POL 34 To promote sustainable energy sources, locally based renewable energy alternatives, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity, natural and built heritage, residential or local amenities.
- INF POL 35 To seek a reduction in greenhouse gases through energy efficiency and the development of renewable energy sources utilising the natural resources of the County in an environmentally acceptable manner consistent with best practice and planning principles
- INF POL 34 To promote sustainable energy sources, locally based renewable energy alternatives, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity, natural and built heritage, residential or local amenities.
- INF POL 46 To support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the County and to facilitate new transmission infrastructure projects that may be brought forward during the lifetime of the plan including the delivery and integration, including linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.
- INF POL 48 To ensure that energy transmission infrastructure follows best practice with regard to siting, design and least environmental impact in the interest of landscape protection.
- INF OBJ 50 To seek the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.

- INF POL 20 To require that a Flood Risk Assessment is carried out for any development proposal, where flood risk may be an issue in accordance with the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoECLG/OPW, 2009). This assessment shall be appropriate to the scale and nature of risk to and from the potential development and shall consider the impact of climate change

6. Planning Assessment

6.1 Principle of Development

The principle of development for a solar farm and support infrastructure is well established in the area, having regard to the permitted Mill Farm Solar Project. The basis for this 110kV substation and grid connection arises from the need to connect the Mill Farm Solar Project to the national grid, thereby according with the aims and objectives of the Development Plan. The Proposed Development ideally is located beneath Meath Hill-Gorman 110kV overhead powerline. Renewable energy projects are supported in principle at National, Regional and Local policy levels, with the need to reduce greenhouse gas emissions, reduce resilience on fossil fuels and combat climate change.

The Climate Action Plan, 2024 sets out a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050, one of the most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030. It is recognised that this will require very substantial new infrastructure including wind and solar farms, grid reinforcement, storage development and interconnection. The Proposed Development will facilitate the construction of the consented Solar Farm, and when the Solar farm is operational, renewable energy will be exported to the national grid via the proposed loop in substation. The project contribute to the overarching aims of the Climate Action Plan.

6.2 Visual Impact

A Landscape and Visual Impact Assessment has been undertaken by Cunnane Stratton Reynolds (CSR). The LVIA has assessed the impact and effects of the proposed development at the application site cumulatively with the adjacent permitted Solar farm development.

The report highlights that the overall design of the Proposed Development has carefully considered its setting within a landscape where tangible energy infrastructure is already apparent in the immediate vicinity of the site. In addition, the proposed development will be located in the immediate vicinity of the aforementioned permitted extensive solar farm and therefore it could be concluded that the Proposed Development is not likely to give rise to any potential significant visual effects.

6.3 Noise

A Noise Impact Assessment was undertaken by MWP and is submitted with the planning application. A baseline environmental noise survey was conducted in the vicinity of the Proposed Development in order to quantify the existing noise environment at the nearest noise sensitive receptors (NSRs) that may be affected by the Proposed Development.

The report concluded that there will be noise emissions associated with the construction phase, but these will be temporary and of short duration. The predicted noise emissions based on the representative machinery typical for this scale of project are expected not to exceed the recommended noise thresholds typically adopted for construction projects in Ireland.

Once operational the predicted noise emissions do not exceed the noise limit criteria adopted for this project which are based on EPA guidance and existing permitted development to avoid cumulative impacts.

6.4 Ecology

A screening for Appropriate Assessment (AA) Report was undertaken by Malachy Walsh and Partners in order to identify potential impacts on designated Natura 2000 sites present in the Zone of Influence (ZOI) arising from the proposed development. The Screening determined that one European Site: the River Boyne and River Blackwater SPA (004232) would not be significantly impacted by the proposed works. It was determined that the project, in the absence of specific mitigation measures may impact the qualifying interests of River Boyne and River Blackwater SAC (Site code: 002299), Dundalk Bay SAC (Site code: 000455) and/or Dundalk Bay SPA (Site code: 004232) and that it should proceed to Stage 2 of the Appropriate Assessment process.

MWP have prepared of a Natura Impact Statement (NIS) to provide the competent authority with the relevant information to conduct an Appropriate Assessment of the project, with regards to its impact on the conservation objectives of the above site.

The report objectively concluded, following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the proposed development and with the implementation of the mitigation measures proposed, that the proposed development will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion. These sites are:

- River Boyne and River Blackwater SAC (Site code: 002299)
- Dundalk Bay SAC (Site code: 000455)
- Dundalk Bay SPA (Site code: 004232)

6.5 Archaeology

An Archaeology and Architectural Impact Assessment was prepared by NEO Environmental Ltd. and submitted as part of the Solar Farm planning application. The proposed substation site was included in these assessments. Baseline information was obtained through a site walkover survey, map regression analysis, placenames analysis, aerial photography and consultation with relevant records and databases. It was identified that there are 53 recorded sites with the National Inventory of Architectural Heritage, Architectural Conservation Areas and Record of Monuments and Places that are within up to 5km of the site. It was determined that there would be no physical impact by the Proposed Development given this distance. There were no features of archaeological significance identified within the site identified.

The application site was considered to have a low potential for sub-surface remains due to there being no confirmed features of archaeological significance. However, in consideration of the relatively high number of features in the surrounding 2km study area it was recommended that an archaeological programme of works be implemented prior to the construction stage, in order to investigate any specific below-ground potential for archaeological remains.

The planning authority accepted this report, and a condition was stipulated as part of the Solar Farm's Grant of permission (ref. 22/1044). This condition (inserted below) will be adhered to should planning be granted for this Proposed Development.

<u>Condition 8:</u>

a) *The applicant is required to engage the services of a suitably qualified archaeologist (licensed under the National Monuments Acts 1930-2004) to carry out pre-development testing at the site following an archaeological detection survey. No sub-surface work shall be undertaken in the absence of the archaeologist without his/her express consent.*

b) The archaeologist is required to notify the Department of Housing, Local Government and Heritage in writing at least four weeks prior to the commencement of site preparation. This will allow the archaeologist sufficient time to obtain license to carry out the work.

c) The archaeologist shall carry out any relevant documentary research and may excavate test trenches at locations chosen by the archaeologist, having consulted the Proposed Development plans.

d) Having completed the work, the archaeologist shall submit a written report to the Planning Authority and to the Department of Housing, Local Government and Heritage for consideration.

e) Where archaeological material is shown to be present, avoidance, preservation in situ, preservation by record (excavation) and/or monitoring may be required and the Department of Housing, Local Government and Heritage will also advise the Applicant/Developer with regards to these matters.

f) No site preparation or construction works shall be carried out until after the archaeologist's report has been submitted and permission to proceed has been received in writing from the Planning Authority in consultation with the Department of Housing, Local Government and Heritage.

6.6 EIA Screening

An EIA screening report was conducted by MWP, and the report concluded that the Proposed Development would not introduce any new or additional effects of a significant or adverse nature such as to have a significant effect on the environment or warrant an EIA.

7. Conclusion

This report sought to highlight the relevant policies in the context of the proposed 110kV Substation development. The Proposed Development is essential in connecting the consented the Mill Farm Solar Project to the National Grid by looping into the Meath Hill-Gorman 110kV overhead powerlines. The environmental studies and assessments completed demonstrate the project would not create an unacceptable impact on the environment, archaeological features and residential amenity.

The Proposed Development is therefore in accordance with the proper planning and sustainable development of the area and will contribute towards achieving National and EU targets. There are policies supporting renewable energy grid infrastructure at National, Regional and Local Level and it will also contribute towards Meath County Council's goal of becoming a leader of renewable energy provision.