Inspector's Report

ABP-311760-21

Development	Solar PV development. NIS lodged at application stage.
Location	Clonymeath, Summerhill, Co Meath.
Planning Authority	Meath County Council
Planning Authority Reg. Ref.	21546
Applicant(s)	Tom Bruton
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	Third Party
Appellants	Kieran Cummins c/o Eco Advocacy
Observer	Emmet Egan
Date of Site Inspection	05th April 2022
Inspector	Máire Daly

Contents

1.0 Site Location and Description

1.1. The subject site which is comprised of one large parcel of land has a stated area of 91.9 hectares and is located within the townland of Clonymeath, approximately 1.1km east of the village of Summerhill in south County Meath. The largest nearby town is Trim which is located approximately 7.5km northwest of the subject site.

1.2. The site which is comprised of 11 no. agricultural fields of various sizes is to be accessed via an entrance off the L2210 local road. The proposed access road to the site is to partially travel through an additional 6 no. agricultural fields and is to also border an existing farmyard. It is proposed to relocate the existing entrance on the southern extreme of the site (which currently provides access to the farmyard) to c. 25 metres to the northeast off the L2210 local road.

1.3. The agricultural fields which comprise the site are currently used for grazing and arable crop purposes. The fields are currently grazed by a mixture of sheep, horses and cattle. The fields themselves for the most part are defined by native hedgerow and mature deciduous treelines in places. The topography on the site varies, ranging from 75m OD in the southwest with some elevated areas up to 96m OD in the eastern most sections of the site. Very few areas of the site are visible from the public road. The nearest residential properties which are not under the ownership of the applicant are located to the immediate south of the proposed entrance; however, these are still far removed (c.490 meters) from the proposed main solar farm area. The closest farmstead to the proposal is located on the north-eastern extremity of the site and is within the applicant's landholding.

1.4. The surrounding land uses are comprised mainly of agricultural fields, with a coniferous forestry plantation to the south. A sand and gravel quarry is located on lands to the north of the site. The Dargan River flows in a south westerly direction to the outside of the site boundary along its northern and western sides. The Clonymeath River flows in a westerly direction through the site (between Field 21 and Field 22 – see submitted application Map 4: Field Numbering) and is currently traversed by a small bridge, it is proposed to upgrade this span bridge as part of the proposal with a new larger clear span bridge. A smaller tributary of the Moynalvy River is located to the north (between Field 22 and Field 11), a new clear span bridge is proposed as part of the project to traverse this watercourse.

1.5. One recorded monument is located within the site boundary, an enclosure in Field 8 (SMR no. ME043-008). Three other recorded monuments are located immediately adjacent to the site boundary which comprise a church and graveyard to the south of Field 2 (SMR no. ME043-007 and ME043-007001) and an enclosure to the north of Field 13 (ME043-009).

1.6. The proposed solar farm is adjacent to and immediately northwest of a site which is intended to be the subject of a separate future application for a 110kV substation and provision of electrical connection to the national grid (ABP Ref. VC17.310076).

2.0 **Proposed Development**

2.1. Permission is sought for a solar farm comprising:

- Solar arrays on ground mounted steel frames, with a maximum overall height of 3 metres, over an area of 91.9 h.
- Each solar panel will have an area of approximately 2.6sqm and will be mounted up to 0.9m above the ground at the lowest edge, rising to 3m at the highest point (rearmost edge). Circa. 450,000sq m of solar panels (c. 172,000 panels) will be installed on pre-erected galvanised steel mounting frames arranged into a series of rows approx. 4m-7m apart. Rows will be arranged in an east-west alignment across the site and positioned to face south at an angle of 20°.
- Ancillary equipment including up to 30 no. medium voltage power stations of approx. height c.3m and a footprint of 14.5sqm. – prefabricated and installed on concrete plinths up to 300mm.
- 1 no. modular Battery Energy Storage Compound (comprising up to 5 no. battery containers up to 12m in length, 3m in width and 3.2m in height)) and all other associated site development works and services, including, internal solar PV farm, underground electrical cabling and ducting,
- 2 no. temporary construction compounds of areas - No.1 3,000sqm and No.2 900 sqm, security fencing, CCTV camera stands,
- Replacement of an existing site entrance with a new gated site entrance c.25m north of existing entrance via the L2210 local road,

- Provision of new internal access tracks of width c.4m and total combined length 4600m. Access track leading to the new Eirgrid Control Building and substation compound will have a design width of 6m.
- Eirgrid Control Building to contain battery room, workshop/store, meeting room, generator room and control room, substation control panels. Building is to measure c.8.3m in height, c. 18m in width and 150sqm footprint.
- IPP Building to measure c. 6.2m in height, 10m in width with a 62sqm footprint.
- Installation of 2 no. new clear span bridge structures across the two waterways on site, spans may vary given width of waterways, standard design detail of 9m span have been provided.
- Site drainage and landscaping, as required to facilitate the development.

Planning permission is sought for a period of 10 years with an operational life of 35 years from the date of commissioning.

2.2. In addition to standard planning application plans and particulars the application was accompanied by:

2.2.1. A Planning and Environmental Report (PER) has been submitted with the planning application which contains the following appendices:

- Appendix 1 - Stakeholder Consultation details
- Appendix 2 - EIA Screening report
- Appendix 3 - Construction and Environmental Management Plan
- Appendix 4 - Noise Impact Assessment Report
- Appendix 5 - Geology and Hydrogeology Assessment
- Appendix 6 - Stage 3 Flood Risk Assessment
- Appendix 7 - Ecological Impact Assessment
- Appendix 8 - Landscape and Visual Impact Assessment
- Appendix 9 - Glint and Glare Impact assessment
- Appendix 10 - Traffic, Transport and access Report

- Appendix 11 - Archaeological Assessment

2.2.2. A Natura Impact Statement (NIS) dated March 2021 was also submitted.

2.2.3. A further information request was issued by the planning authority on 18th May 2021. A response to same was received on 19th July 2021. The response included the following:

- Revised Stage 3 Flood Risk Assessment
- Geophysical survey and report for 47ha of the site to address concerns in relation to archaeology - including summary greyscale images in relation to Field 2, Field 3, Field, 6, Field 8 and Field 10.
- Review and response to the submitted third party submission.

2.2.4. The planning authority determined that the information received was significant and requested that revised notices be published. These notices were published in August 2021. Following consideration of the significant further information Meath County council granted permission for the proposal in September 2021.

2.3. **110kV substation and electrical connection to the national grid**

2.3.1. The current applicant also proposes to construct a 100kV Air Insulated Switchgear (AIS) Substation and Independent Power Producer (IPP) compound to the southwest of and adjacent to the Clonymeath Solar Farm. This infrastructure and grid connection do not form part of the current application and are subject to a separate planning consent process. This application was subject to a separate planning consent process with An Bord Pleanála under Section 182E (ABP Ref. VC17.310076) to allow the board to determine whether Section 182B process was applicable to this development. The Board determined in November 2021 that the application fell within the scope of Section 182A of the Planning and Development Act 2000, as amended, and that an application should be made directly to the Board.

2.3.2. The proposed National Grid connection for Clonymeath Solar Farm will entail a new 110kV overhead line connection between proposed 110kV substation and the Mullingar-Corduff 110kV line as required to export the electricity generated to the wider region.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. Permission was granted by Meath Co. Co. in September 2021 subject to 21 no. conditions. These conditions relate to, inter alia, a ten year permission, confirmation of the output capacity, sightlines, submission of a Construction Stage Traffic Management Plan, pre- and post-construction surveys of local roads and a cash deposit of €10,000 to secure satisfactory completion of any repairs to the roads, implementation of identified mitigation measures identified in Section 5 of the Traffic and Access Report, submission of a CEMP and a Waste Management Plan, enhancement and mitigation measures as set out in the EcIA, construction practices, surface water, best ecological practice, implementation of glint and glare mitigation measures, consent required from OPW prior to commencement for the proposed culvert under Section 50 of the Arterial Drainage Act, submission of exact detail of transformers/inverters and other structures, decommissioning details, detail of CCTV cameras, prevention/mitigation measures as detailed in the NIS, conditions in relation to archaeology and heritage protection as detail by the Department of Housing, Local Government and Heritage, lodgement of a cash deposit to secure the satisfactory reinstatement of the site, and a Section 48 development contribution.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The planning authority decision is based on two planning reports. The planning authority's first planning report (dated May 2021) considered, inter alia, the principle of the proposed development, the siting, layout, and design of the proposed development, landscape and visual impact, glint and glare, access and traffic, environment, heritage, natural heritage, flooding and hydrology, noise, appropriate assessment (AA), and environmental impact assessment (EIA). The Executive Planner concluded that the proposed development was consistent with the policy context and was therefore acceptable in principle. Further information was recommended in relation to flooding, archaeology and heritage (to address issues raised by the Department of Tourism, Culture, Arts, Gaeltacht & Sports – National

Monuments Service (NMS) and the Department of Environment, Climate & Communications - Geological Survey Ireland (GSI)) and also lighting design and the third party submission.

The second planning report (dated September 2021) considered the applicant's further information response (significant further information was determined and therefore revised public notices were required). The report concluded that, having regard to the suitability of the site from a technical perspective and the nature and scale of the proposed development, subject to conditions, the proposed development would not seriously injure the amenities of the area or lead to a devaluation of adjacent property, would not create a traffic hazard or traffic inconvenience and would be in accordance with the proper planning and sustainable development of the area.

3.2.2. **Other Technical Reports**

Environment Department –

Report dated 14th May 2021 – No objection subject to conditions in relation to CEMP, WMP, EcIA enhancement and mitigation measures, Construction phase mitigation including management of dust, refuelling, noise, glint and glare, vibration, complaint register and importation of soil.

Report dated 23rd September 2021 - Following further information response in relation to flood risk - a revised SSFRA was submitted which demonstrated that the applicant had carried out a 50% culvert blockage analysis of all culverts/crossings in the vicinity of the proposed development site, and that same analysis indicated that there will be no impact on the proposed development as a result. Therefore, from a flood risk perspective this department had no objection to the proposed development.

Transportation Department -

Report dated 14th May 2021 – sightlines at the existing agricultural access are obstructed by the existing walls and hedge and the applicant proposes to address this by relocating the entrance 30 meters to the northeast. It is acceptable under the current standards to allow for relaxation in sight distance and in this regard the visibility sight lines achieved at the relocated access point are deemed appropriate.

Swept path analysis is noted. Glint and glare was not considered to be an issue given that no local roads are located adjacent to the site boundary.

Public Lighting (Transportation) -

Report dated 19th August 2021 - Following the further information response the submission on lighting is satisfactory.

Water Services Section –

Report dated 14th May 2021 - should permission be granted three issues shall be addressed to the satisfaction of the planning authority prior to commencement; ditches shall remain open except for crossing points; the applicant shall submit consent for the proposed culvert from Office of Public works under Section 50 of the Arterial Drainage Act and all works shall comply with the Greater Dublin Strategic Drainage Study Regional Drainage Policies Volume 2.

Conservation Officer

Response received dated 03rd September 2021 – stated that planning authority should be guided by the recommendations of the NMS with regard to the record of monuments on site.

3.3. **Prescribed Bodies**

3.3.1. **Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (National Monuments Service (NMS))** – Response dated 23rd April 2021 - The NMS considers the site to be of high archaeological potential. 4 no. recorded monuments are noted on the site or immediately adjacent to the site, these are church and graveyard ME043-007 and ME043-00701, enclosure ME043-008 and enclosure ME043-009 is located immediately adjacent to the site. Earthworks are visible on available Google Earth imagery in the general site area, and it is possible that some of these are of archaeological interest. An Archaeological Impact Assessment should be prepared and submitted as further information to the planning authority.

3.3.2. A second submission dated 23rd August 2021 relating to archaeology was received on foot of the further information response; however, this was received under cover of the Department of Housing, Local Government and Heritage. The submission notes that the geophysical survey carried out identified a number of subsurface sites

and structures of archaeological interest in addition to the sites already recorded. The Department also noted the applicant's commitment to completing an AIA and inclusion of mitigation measures from same to avoid sensitive areas (Section 2.1.1 of response to further information received from MKO – 19th July 2021). Conditions were recommended (archaeological mitigation recommendations including Archaeological Assessment and test trenching) on any grant of permission.

3.3.3. **Geological Survey Ireland (GSI) (Department of the Environment, Climate and Communications)** – Response dated 5th May 2021 noted that the original solar farm development site was altered (based on previous correspondence with MKO) to reduce potential impacts to the Trim Esker complex County Geological Site (CGS). No envisaged impacts on the integrity of current CGSs are expected.

3.3.4. A submission dated 16th August 2021 was also received on foot of the further information response. This states that GSI has no specific comment or observation to make.

3.3.5. **Irish Water** – Response dated 15th April 2021 - No objection subject to conditions.

3.3.6. **Irish Aviation Authority** – Response dated 20th April 2021 – no observations to make on application.

3.4. Third Party Observations

3.4.1. One third party submission was received on foot of the planning application from a local resident Emmet Egan. The concerns raised can be summarised as follows:

- No issues with specifics of project – supporter of renewable energy.
- Query regarding the community benefit fund – is this to be conditioned if planning is approved? Reference to RESS wind and solar projects should contribute €2/MWh.

3.4.2. Four submissions were received on foot of receipt of significant further information. These submissions were received from 1. Kieran Cummins, C/o Eco Advocacy, 2. Local Summerhill/Moynalvey Residential Group, 3. Jason Browne and 4. John Moore. The issues raised can be summarised as follows:

- Inappropriate use of agricultural lands, solar panels should be mounted on existing structures.

- Scale of proposed development on a finite resource not justified.
- Limited community benefit.
- Industrial vandalism.
- Concerns regarding lack of Strategic Environmental Assessment (SEA).
- Visual and heritage impacts.
- Ornithological impacts.
- Alterative renewable energy sources available.
- Lack of public consultation.
- Lack of assessment of cumulative effects with other developments and proposals.
- Traffic impacts.
- Ecological and biodiversity impacts.

4.0 Planning History

4.1. Subject site:

4.1.1. There has been no previous planning application made on the site subject of the planning application.

4.2. Surrounding site to the east and west:

- ABP ref. 312723-22 – (P.A. Ref No. 21985) – Application currently on Appeal with ABP - Permission granted by Meath County Council in January 2022 for solar farm development with a total site area of 108.68ha, to include solar panels mounted on steel support structures, associated cabling and ducting, 27 no. MV Power Stations, 3 No. Client Substations, 3 No. temporary construction compounds, access tracks, boundary security fencing and security gates, CCTV, landscaping and ancillary works. Significant Further information/Revised plans submitted on this application.

4.3. **Other relevant nearby sites:**

- Site to immediate southwest - ABP Ref. VC17.310076 - Application to construct a 100kV AIS Substation and IPP compound to the southwest of and adjacent to the Clonymeath Solar Farm was subject to a separate planning consent process with An Bord Pleanála under Section 182E (ABP Ref. VC17.310076) to allow the Board to determine whether section 182B process is applicable to this development.

  The Board determined in November 2021 that the application fell within the scope of Section 182A of the Planning and Development Act 2000, as amended, and that an application should be made directly to the Board.

  The proposed National Grid connection for Clonymeath Solar Farm will entail a new 110kV overhead line connection between proposed 110kV substation and the Mullingar-Corduff 110kV line as required to export the electricity generated to the wider region.

- 3.5km to the southeast - P.A. Ref. RA170766 – Permission granted in April 2018 for photovoltaic solar farm on a site of 23.6 hectares (58 acres) with an export capacity of approximately 8MW, comprising photovoltaic panels on ground mounted frames; 4 no. inverter stations; 1 no. interface substation; ducting and underground electrical cabling; perimeter fencing; pole mounted CCTV cameras; screen planting/landscaping; closing up of existing vehicular entrance and creation of a new vehicular entrance on the local road (L6215); new internal access track from the new vehicular entrance to connect with existing internal farm tracks, and all ancillary works necessary to facilitate the development. Significant further information/revised plans submitted on this application. Permission granted for a period of 25 years.

5.0 Policy Context

5.1. Climate Action Plan (CAP) 2021 – Securing Our Future

5.1.1. The Climate Action Plan 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. Among the most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030 and the following targets for electricity generation and transmission have been set:

- Onshore Wind capacity: up to 8GW;
- Offshore Wind capacity: 5GW (minimum);
- Solar PV Capacity: 1.5-2.5GW.

5.2. Project Ireland 2040 National Planning Framework (NPF)

5.2.1. The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It will be focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 is 'Transition to a Low Carbon and Climate Resilient Society' and it is expanded upon on page 147 of the NPF. There is a national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. 'This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand'.

5.2.2. The 'Energy Production' part of Section 5.4 (Planning and Investment to Support Rural Job Creation) notes that rural areas will continue to significantly contribute to the energy needs of the country. 'In meeting the challenge of transitioning to a low-carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a

rural setting, while also continuing to protect the integrity of the environment and respecting the needs of people who live in rural areas'.

5.2.3. National Policy Objective (NPO) 55 states 'Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050'.

5.3. Ireland's Transition to a Low Carbon Energy Future 2015-2030

5.3.1. Accelerate the development and diversification of renewable energy generation to be achieved through a number of means including wind, solar PV and ocean energy.

5.4. Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy (RSES) 2019-2031

5.4.1. There are 16 no. Regional Strategic Outcomes (RSOs). RSO 8 is to build climate resilience. RSO 9 is to support the transition to low carbon and clean energy.

5.4.2. Section 7.9 Climate Change states that "The Strategy supports an increase in the amount of new renewable energy sources in the Region. This includes the use of wind energy – both onshore and offshore, biomass, and solar photovoltaics and solar thermal, both on buildings and at a larger scale on appropriate sites in accordance with National policy and the Regional Policy Objectives outlined in this Strategy".

5.4.3. This section also states that "Local authorities should harness the potential of renewable energy in the Region across the technological spectrum from wind and solar to biomass and, where applicable, wave energy, focusing in particular on the extensive tracts of publicly owned peat extraction areas in order to enable a managed transition of the local economies of such areas in gaining the economic benefits of greener energy.

The provision of infrastructure should be supported in order to facilitate a more distributed, renewables-focused energy generation system, harnessing both on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting sites of optimal energy production to the major sources of demand".

5.4.4. Section 10.3 states that “To meet our energy targets, we need to better leverage natural resources to increase our share of renewable energy”. Renewable energy is also referenced in section 10.3. RPOs 10.20 and 10.22 are particularly relevant.

5.4.5. **Meath County Development Plan 2021-2027**

5.4.6. It is the policy of the Council, as set out in ED POL 19 ‘To support and facilitate sustainable agriculture … renewable energy and other rural enterprises at suitable locations in the County’.

5.4.7. Chapter 6 (Infrastructure) notes that ‘International, EU and National policies all promote a much more energy-efficient society relying on sustainable renewable energy sources. This will ensure that we secure our international competitiveness by increased use of and demand for indigenous resources and increased security of supply. Consequently, policies and objectives promoting energy efficiencies and the development of indigenous resources will be pursued during the lifetime of this Plan.

5.4.8. This Development 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’. Solar energy is specifically referenced in Section 6.15.3.1. Policies in chapter 6 that generally support renewable energy include INF POL 34 and 35 and similar objectives include INF OBJ 39 and 41.

5.4.9. Chapter 10 (Climate Change Strategy) notes that it is essential to move away from using conventional coal and gas-fired power to electricity generated from renewable sources.

5.4.10. It is the policy of the Council, as set out in DM POL 27, ‘To encourage renewable development proposals which contribute positively to reducing energy consumption and carbon footprint’. DM OBJ 76 outlines the criteria to be considered in individual energy development proposals e.g. environment, traffic, landscape etc. DM OBJ 77 relates specifically to solar energy and outlines what is required to be submitted with such a planning application e.g., glint and glare assessment, CEMP, ecological assessment, archaeological assessment, traffic assessment etc.

5.5. Natural Heritage Designations

5.5.1. The closest Natura 2000 site is River Boyne and River Blackwater SAC (Site Code 002299) approx. 6km north of the subject site. The closest heritage area is Rathmoylan Esker proposed NHA (Site Code 000557) approx. 4.7km west of the site. The Royal canal pNHA (Site Code 002103) is located approx. 6.4km south of the site.

5.6. EIA Screening

5.6.1. Schedule 5 of the Planning and Development Regulations 2001 (as amended), sets out Annex I and Annex II projects which mandatorily require an Environmental Impact Assessment Report (EIAR). Development of a class included in Part 1 requires mandatory EIA. Development of a class included in Part 2 is subject to thresholds and may require EIA. Solar farms are not listed as a class of development under either Parts 1 or 2 of schedule 5, and therefore, I conclude that a mandatory EIA, and the submission of an EIAR, is not required. There are projects under item 3 of Part 2 of the P&D Regulations (2001) as amended, 'Energy Projects' which relate to energy production, but I suggest that none of these listed projects would be applicable to a solar farm as currently proposed. The Board will note that a similar conclusion has been reached in relation to previously decided solar farm developments.

5.6.2. Notwithstanding the above, I note that an EIA Screening exercise was carried out by the applicant. This exercise was informed by the NIS and all PER submitted associated reports. This report concluded that the nature or characteristics of the proposed development at this location are not considered likely to have significant effects on the environment. The geographic extent of the proposed development, although moderate in scale, is not considered to pose significant impacts during the construction and operational phases.

6.0 The Appeal

6.1. Grounds of Appeal

6.1.1. One third-party appeal was received from Mr. Kieran Cummins, Executive Director of Eco Advocacy and may be summarised as follows:

- The appellant is alarmed at the large site area (91.9 ha) and abuse of finite agricultural land.
- The use of existing roof spaces should be investigated for solar panel use – there is no shortage of large factory, warehouse or farm shed roofs with south facing aspects. Or alternatively other forms of hard surfaces should be used or brownfield sites as opposed to useable agricultural lands.
- Clarification required on what the Megawatt capacity of the development will be?
- The proposed fixed installation (not tracking sun) is an inefficient use of resources.
- The northern latitude of Ireland and the proposed location is not efficient in terms of capturing solar energy.
- Neither solar or wind power are dispatchable forms of energy and require backup with by mainly fossil fuels. Deep-bore geothermal is an alternative dispatchable energy which should be looked at. Other sources of renewable power generation should also be examined e.g. hydrogen, tidal, wave, biofuel, hydroelectric.
- The area planner did not adequately address the concerns of the third parties.
- The issue of grid connection also needs consideration and concerns are raised regarding the submission of separate applications and the lack of joint assessment of all proposals together.
- There are currently no guidelines for solar energy and therefore all solar proposals should be suspended until full and proper analysis of solar energy is conducted having regard to SEA, Landscape Character, Health and Safety, Infrastructure, Grid Connection etc.

- This proposed development is for an inappropriate developer led proposal rather than one based on national and strategic planning. Often these developments split communities and do not benefit the whole community.
- Flawed financial support system - The RESS provides for grant incentives which encourage these types of inappropriate developments.
- The proposal will have a large carbon footprint by necessitating the manufacturing of streel support structures and other component parts and also use of large amounts of cement. The Board should also examine the issue of run-off in greater detail and possible impacts of pollution from chemical/metal escape to groundwater (Cadmium Telluride, Gallium Arsenide, lead, trifluoride, sulphur hexaflouride).
- Archaeology and geophysical analysis should be completed.
- There is a conflict with amenities and tourism in the area i.e. the Boyne Valley and Ireland's Ancient East (including the surrounding counties).
- The proposed development would give rise to significant traffic movements and cause noise/disturbance and air pollution in the area.
- The destruction of agricultural lands in this manor is contrary to the European Landscape Convention.
- The appellant is dissatisfied with the quality of Appropriate Assessment under the EU Habitats Directive. The Board should examine the Natura Impact Assessment in more detail.
- The Board should also be satisfied that the development complies with the EIA Directive (various reference to caselaw concerning the EIA and Habitats Directives have been listed in the appeal).
- The appellant believes that the proposal is contrary to the SEA Directive which provides that programmes/plans/projects should be conducted as a whole and not in isolation. The current application is a project, and it is considered that one cannot go to a project without first having a plan or programme conducted.

- Given the plethora of solar developments being applied for recently these should all be assessed cumulatively in the planning context (a comprehensive list of recent solar developments within Meath, Kildare and Wicklow has been included).
- Significant evidence that solar development can have impacts on migratory birds. Has this been adequately considered?
- Human rights issues – exploitation of workers /labour to make solar panels in countries like China.
- Where will the aggregates required for construction be sourced from? Is there evidence that they will be sourced from authorised extraction industry only? Can the precise quantities of aggregate required be given?
- Major issues with the disposal of solar waste/decommissioning process.
- The appellant is not satisfied that an adequate assessment has been conducted by the applicant of possible impacts on air traffic as a result of the proposal.
- Electrical safety - Have the applicants consulted with the local fire services? Are they equipped to deal with a fire on site?
- Capacity factors on the grid and battery storage.

6.2. **Applicant Response**

6.2.1. The applicant's response to the third-party grounds of appeal (prepared by MKOS on behalf of the applicant) can be summarised as follows:

Solar PV Technology

- It is a common misconception that solar PV farms require direct irradiation to function, however due to advancements in PV technology direct sunlight is not required for modern solar PV systems. Solar irradiation rates in Ireland are similar to those found in other parts of Europe (i.e. Germany) and the UK and furthermore solar irradiance in certain parts of Ireland is in fact 78% of the levels observed in Madrid, Spain. A major advantage of Ireland's climate is that daylight periods typically overlap with peak demand times (7am to 9am

and 5:30pm to 7pm). County Meath has a potential of c. 950kWh/yr per KW. The availability of radiant energy will allow the proposed development to achieve a maximum export capacity of 62MW.

- The proposed development has incorporated a battery energy storage system (BESS). This technology provides key grid stabilising services which can be readily implemented in overcoming the challenges of transitioning to renewable technologies. The proposed BESS system has the ability to absorb energy in periods of high and release at times of lower renewable generation to match consumer demand.
- It is acknowledged that there are currently no standardised national guidelines for the development of solar PV infrastructure and consequently the onus is on the relevant planning authority and the developer to ensure that solar generation is in accordance with the proper planning and sustainable development of the area. The proposed development is consistent with the overarching framework with regards to facilitating the integration of renewable generation and the promotion of proper planning and sustainable development, the proposal seeks to achieve objectives to tackle climate change as highlighted in the IPPC's Sixth Assessment Report and European Climate Law (published July 2021).
- The Climate Action and Low Carbon Development (Amendment) Act 2021 legally binds Ireland to achieve net zero emissions no later than 2050 and to a 51% reduction in emissions by the end of the decade. If permitted the proposed development will contribute to Ireland 2030 climate change objective targets. The Climate Action Plan 2021 expands on these targets for Solar PV of 1.5 – 2.5GW.
- The proposal is supported by the policies of the Meath CDP 2021-2027 (Policies 19, 34, 35 and 39).
- The applicant acknowledges and recognizes the importance of establishing a community benefit fund (Up to €150,000 per annum depending on the installed capacity, production output and source of revenue) and is fully committed to do so in line with best practice and guidance.

- A comprehensive assessment of the site was carried out which determined that ground mounted solar array could be accommodated without significant adverse impacts to the receiving environment. There is no evidence or indication that the proposed development site would be suitable for deep bore geothermal energy.

Proposed Clonymeath Solar Farm

- The absence of standardised national guidelines for the development of solar PV infrastructure has required the developer to undertake robust and comprehensive assessments to ensure the proposed solar generators can be adequately accommodated within the identified site. Based on feedback from prescribed bodies the initial red line boundary of the site was revised.
- The proposed development was originally referenced as having 62MW maximum export capacity. The MW output of the generation site on the same footprint is likely however to increase due to the improvements in panel efficiency. The planning authority have recognised this (see condition no.3 of PA grant).
- It should be noted that neither the proposed development nor the transmission infrastructure are subject to the requirements of EIA and therefore project splitting it's not relevant in the context of the O' Grianna & ors v An Bord Pleanála judgment.
- The proposed solar panels are comprised of crystal silicon which is manufactured from sand, there are no metals/contaminants within the panels which could run off and discharge to the underlying aquifer. Once constructed the contents of the solar panels will be held in an insoluble solid matrix which does not typically degrade or leach.
- The potential impacts of stormwater runoff and subsequent discharge to the receiving environment were comprehensively assessed within the PER with regards to land soil and hydrogeology and flood risk. The existing runoff regime will remain unchanged as a result of the proposed development.

- Best practice mitigation measures will be followed during the construction phase and any impacts would be negligible.
- In the event of favorable consideration and construction commencing the appointed contractor will prepare a fire safety risk assessment (FSRA) off the site. In relation to safety the conditions of the Safety, Health and Welfare at work (Construction) Regulations 2006 will be adhered to.
- The proposed development will use relatively little concrete as it is only required for the foundations of the CCTV bases, as plinths for the MV power stations and the BESS modules and the two clearspan bridges.
- The CEMP provides a Waste Management Plan (WMP) which outlines the best practice procedures during the construction phases of the project. The expected waste volumes generated on site are unlikely to be large enough to warrant source segregation or a dedicated waste storage area.
- Upon decommissioning an environmental appraisal will be undertaken to inform the decommissioning strategy. Waste will be managed in line with circular economy principles to ensure that waste is limited and after uses are implemented wherever feasible.

<u>EU: EIA, Habitats and SEA Directives</u>

- The proposed project does not fall into any of the classes set out in either parts of Schedule 5 of the Planning and Development Regulations 2001, as amended. Notwithstanding this fact and for the avoidance of any doubt a sub-threshold screening report was prepared and included as Appendix 2 of the PER. This screening report concludes that impacts associated with the proposed project are not significant in the context of Schedule 7 of the Regulations.
- The planning authority as the competent authority (at the time of their decision) undertook an appropriate assessment of the proposed development as per Article 6(3) off the Habitats Directive. The planning authority's stage 2 Appropriate Assessment concluded that 'the proposed development by itself or in combination with other plans and developments in the vicinity, subject to the mitigation measures proposed in the NIS would not be likely to have a

significant effect on European sites'. It should be noted that as part of this assessment the proposed 110kV substation and grid connection infrastructure were also considered for in-combination effects. Given that the application is now being appealed the Board is now the competent authority.

- The proposed development represents project level development and does not compromise either a plan or programme, nor does it set the framework for future development consent. It is therefore clear that the proposed development does not require SEA as per the provisions of the SEA Directive/Regulations. It should also be clarified that paragraph Ref.57 of the third-party appeal is incorrect in its assertation that the proposed development 'should never have been built without fulfilling its obligations with regard to the SEA Directive'.

Loss of Agricultural Land

- It has been extensively demonstrated across the UK and Europe that solar PV technology is sympathetic to agriculturally productive land. It is also considered important to reiterate policies ED19 and RUR DEV SO 10 of the CDP which aimed to promote and encourage economic development to meet the needs of rural areas.
- Agricultural land will not be permanently lost as a result of the construction and operation of the proposed development with regard to the minor footprint of required ground disturbance and the temporary nature of the development. The proposed development will provide long term (35 years) environmental benefits in the form of biodiversity enhancement measures which will be significantly positive at a local scale.

Environmental Assessment

- Irrespective of the natural vegetation shelter provided by the application site, a Landscape and Visual Impact Assessment was prepared which demonstrates that the proposed development will not result in any significantly adverse effects on the surrounding landscape and visual receptors.
- Using terrain modelling techniques combined with the proposed development specifications, a map was created identifying surrounding areas from where

the proposed site may theoretically be visible – Zone of Theoretical Visibility (ZTV). Viewshed Reference Points (VRP) were selected following the ZTV analysis and field surveys at the proposed development site and surrounding environments. The most significant landscape feature within the wider setting of the proposed development is the Hill of Tara, which has national and international importance. This site is located c.12km to the northeast of the subject site. There are no views of the proposed development from the Hill of Tara due to the topography of the Tara Skyrne Hills to the east of the site.

- The Glint and Glare Assessment demonstrates that any impact reflectance on local residential receptors, road users and aviation/flightpath receptors will be negligible.
- Cultural Heritage - geophysical survey results from June 2021 were submitted to the planning authority as part of the request for further information response on the proposed development and a series of corresponding pre-construction archaeological mitigation measures were also committed to therein. The NMS were also consulted at this stage of the process and revised observations (dated 23rd August 2021) were received recommending archaeological mitigation. These measures were incorporated within the schedule of conditions (condition no.19) attached to the planning authority's notification of decision to grant permission. The applicant has no objection to the inclusion of similar conditions by the Board. It is important to emphasise that the NMS did not raise any objection to, nor recommend refusal of permission for the proposed development, but rather acknowledged the pre-construction archaeological mitigation measures proposed and committed to by the applicant, in addition to the proposed archaeological mitigation conditions.
- Ecology – as part of the Ecological Impact Assessment a field survey was completed for the proposed site and the 110kV substation compound area in January 2021. Bird fauna was evaluated as having 'low local importance' on the rationale that the site may experience regular or occasional use by a small number of common birds. Also, the risk of collision mortality on birds from the proposed development is not significant.

- A Traffic Transport and Access Report was prepared for the proposal which outlines that staff construction traffic on average would only lead to a temporary increase of circa 3% to traffic volumes on the L2210 over the course of the construction phase and a temporary increase of circa 2% on the R156 Regional Road. In accordance with NRA Traffic and Transport Assessment Guidelines (2014) the impact would not be considered significant. Operational traffic volumes would not constitute an increase or intensification in the use of the L2210 compared to current traffic volumes generated from agricultural operations on site. Any temporary construction traffic impacts will be addressed through measures listed in the finalised traffic management plan.
- The submitted Noise Impact Assessment Report states that it is not possible to specify the precise noise levels from the construction equipment until such time as a contractor is chosen and construction methods have been selected. However, working on predictive noise levels, those expected are well within the NRA guidelines stated levels and well below the lower threshold of 65dBA as defined in BS 5228-1:2009. Notwithstanding this the CEMP (Section 3.5) also sets out proposed mitigation measures to control construction noise.

Regional Cumulative Impacts

- Due to the nature and physical characteristics of solar PV technology, the spatial range for potential cumulative impacts from this type of development is more curtailed as compared with other renewable technologies e.g. wind turbines. The proposed development site benefits from significant and robust landscaping and lower elevations which restricts the potential for cumulative effects with other regional solar farms and other proximate developments. From a review of the submitted assessments (appendices of PER) it is concluded that there will be no material cumulative impacts arising between the Clonymeath and Knockstown solar PV farm which is 3.5km to the southeast.
- It is acknowledged that further augmentation of solar PV generation capacity in this locality may however give rise to potential synergies in Summerhill and these will need to be considered separately for cumulative impacts as they

arise. In particular MCC Planning Ref. 21/985 for a solar PV farm on the adjacent sites is noted[1].

Applicant's request to the Board to review and remove Proposed Condition No.9 (j)

- The submitted Noise Impact Assessment does not identify any significant impacts associated with noise emissions from the overall project nor are there any predicted noise levels considered being at risk of exceeding the noise limits set out in the EPA guidance (NG4 January 2016) and replicated in Condition 9 (j). Against this backdrop there is limited value or practicality of the conditioned monitoring in the context that solar arrays and ancillary infrastructure have inherently low operational noise emissions. The Board has generally adopted this rationale in their assessment of other solar PV developments and have consistently decided not to condition annual noise monitoring when granting permission for this type of development (e.g. ABP Refs. 309987, 307891, 306915, 305434, 305186). It is therefore requested that should the Board grant permission for the proposed development that Condition no.9 (j) be removed from the schedule of conditions as it would ultimately become an undue financial constraint on both the applicant and the operation of the solar farm.

6.3. Planning Authority Response

6.3.1. A response to the third-party appeal from the Council dated 22nd November 2021 was received by the Board. The response can be summarised as follows:

- The planning authority is satisfied that all matters outlined in the appeal were considered in the course of its assessment of the planning application as detailed in the planning officer's reports.
- The proposed development is considered to be consistent with the proper planning and sustainable development of the area and should therefore be granted.

[1] this application is also currently under appeal to the Board (ABP Ref. 312723).

6.4. **Observations**

6.4.1. One observation was received from Mr Emmet Egan, which can be summarised as follows:

- If the project receives RESS support then the creation of a community benefit fund is mandatory. If the project were not to receive RESS support then there would be potentially no community benefit fund.
- In the response to further information a commitment was made by the applicant in respect of providing a community benefit fund outside of the RESS. The observer would like to express their support for the project and developer for showing a level of understanding and flexibility in responding to their submission. This commitment will ensure the project will have a lasting effect on the local community through the provision of a community benefit fund regardless of success in any future RESS auction.
- The project should be looked upon favorably by the Board and the grant permission made by Meath County Council should be upheld.

7.0 **Assessment**

7.1. Having examined the application details and all other documentation on file, including all of the observations and submissions received in relation to the appeal, and inspected the site, and having regard to relevant local/regional/national policies and guidance, I consider that the main issues in this appeal are as follows:

- Principle of the Development
- Noise, Traffic and Transportation
- Landscape and Visual Impact
- Loss of Agricultural Land / Ecology
- Environmental Assessments
- Archaeology and Cultural Heritage
- Other Matters

An Appropriate Assessment is also required and is detailed under Section 8 of this report.

7.2. Principle of Development

7.2.1. The third-party appeal raised issue with the type of technology proposed, including concerns in relation to the viability of solar PV development at the subject site. The appeal also raised issue with the lack of consideration of alternative renewable technologies which may be more suitable to the site including deep bore geothermal. The applicant sought to address these concerns in their response to the third-party grounds of appeal, received by the Board in November 2021.

7.2.2. In considering the concerns raised in the appeal I note that renewable energy development is supported in principle at national, regional and local policy levels, with collective support across government sectors for a move to a low carbon future and an acknowledgement of the need to encourage the use of renewable resources to reduce greenhouse gas emissions and to meet renewable energy targets set at a European Level. It is also an action of the NPF under National Policy Objective no. 55 to '*promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050*'.

7.2.3. Notwithstanding the general acceptability of solar power as a form of energy generation, I note that at a more strategic level the land-use policy and spatial framework is poorly developed, and there is no guidance on the type of land or landscape which would be most appropriate. This issue was also raised in the appeal and I acknowledge same concern, however I also note both the applicant's and planning authority's responses in which they state that given the lack of national guidance the onus is consequently on the developer and relevant planning authority (or in the case of the current appeal the Board) to ensure that solar generation is in accordance with the proper planning and sustainable development of the area.

7.2.4. The applicant's Planning and Environmental Report (PER - Section 4) sets out in detail the policy context and a planning assessment of the environs. The policy context is also referenced in Section 5 of this Inspector's Report. Strong support for development of renewable sources of energy is evidenced at all levels of the policy hierarchy to reduce the reliance on fossil fuels. The applicant's response to the

grounds of appeal also addresses alternatives considered on site and it is clear that following a detailed assessment of the site (informed by studies conducted for the PER and its appendices, as well as the submitted NIS) that a ground mounted solar array on site could be accommodated without significant adverse impact to the receiving environment. In my opinion the applicant also adequately addressed the concerns raised in the appeal in relation to the viability of the solar farm at this current location, in particular with regard to its latitude and the appropriate PV technologies used for the proposed solar panels. They also clarified in their appeal response the expected MW output from the proposed development and details of grid capacity and battery storage. The applicant states under Section 2.1 of their appeal response that the availability of radiant energy will allow the proposed development to achieve a maximum export capacity of 62MW, however they also state that the MW output of the generation site on the same footprint is likely to increase due to the improvements in panel efficiency. This is common in such developments, and I note that the planning authority have recognised this also and allowed for flexibility in possible output (see condition no.3 of planning authority decision to grant). If the Board are minded to grant permission I would suggest that a similar condition should be attached to allow for same flexibility and efficiencies.

7.2.5. In addition to MW output the applicant has also addressed energy storage in their appeal response and states that the proposed development has incorporated a battery energy storage system (BESS). This technology provides key grid stabilising services which can be readily implemented in overcoming the challenges of transitioning to renewable technologies. The proposed BESS system has the ability to absorb energy in periods of high productivity and release at times of lower renewable generation to match consumer demand. I consider this a satisfactory approach.

7.2.6. In relation to the appellant's focus on alternative renewable energies, including geothermal deep bore, the applicant states that research undertaken on that type of renewable energy generation is generally untested within the Irish context and still requires significant research and identification/screening of potentially suitable sites. There is no evidence or indication that the proposed development site would be suitable for deep bore geothermal energy nor could the applicant confirm whether the implementation of such technology would result in significant adverse impacts to

the environment. I am satisfied with the applicant's response in this regard and note that it is a solar PV development which is currently under assessment and not any alternatives to same, therefore I am satisfied that this issue of alternatives need not be addressed in any further detail.

7.2.7. The Meath County Development Plan 2021-2027 which came into effect on 3rd November 2021 is the relevant plan under which this appeal is assessed. It is noted in Section 6.15.3.1 that 'Large scale solar farms have been positively considered on suitable sites within the County in the recent past. As of May 2019, twenty solar photovoltaic farms were granted planning permission across the County'. INF OBJ 39 states that it is an objective of the Council 'To support Ireland's renewable energy commitments outlined in national policy by facilitating the development and exploitation of renewable energy sources such as solar, wind, geothermal, hydro and bio-energy at suitable locations within the County where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities so as to provide for further residential and enterprise development within the county'. In my view, this objective makes clear that any proposed solar farm development in a rural area is supported in principle by the plan.

Conclusion

7.2.8. In summary, I note that there is policy support for this type of development at national, regional and local policy levels and I am satisfied that the proposed development, including the technologies to be employed would be suitable at this location and are acceptable in principle, subject to the other normal planning considerations which are exmained in the sections that follow.

7.3. Noise, Traffic and Transportation

Operational Noise and Cumulative Effects

7.3.1. Noise is addressed in Section 5.2 of the applicant's Planning and Environmental Report and Appendix 4 contains a detailed Noise Impact Assessment Report (NIAR). The assessment considers the potential noise impacts generated by the operation of the proposed solar farm, as well as the proposed 110kV substation to the immediate southwest (separate project). The report provides a baseline description of the background noise environment and assesses the potential impacts that the

construction, operation and decommissioning phases of the development will have on receptors, including potential cumulative impacts. The noise survey was carried out at the nearest receptors to the proposed solar PV farm. The noise environment at all recording locations was recorded as being primarily dominated by road traffic noise from near and far. I note that the only residential property within close proximity to the proposed site is in fact under the ownership of the applicant and is located immediately adjacent to the northeastern site boundary. All other sensitive noise receptors such as other residential properties are located a minimum of c.490m from the location of the proposed solar PV array.

7.3.2. As per Appendix 4 of the PER the calculated noise levels at the identifying receptors are predicted to be well within the nighttime noise limits even when the levels are predicted assuming maximum output from the solar farm during summer daylight hours between 04:00 and 07:00hrs. The predictive noise levels from the proposed solar array cumulatively with the 110kV substation and battery storage containers should be inaudible at all receptors and at a similar or lower level than the background noise levels recorded in low road traffic flow levels. There are no developments operational, consented or in planning stage that would contribute to the local noise environment, so the potential for cumulative impacts is considered negligible.

Construction Noise Impacts

7.3.3. In relation to construction noise impacts the submitted Noise Impact Assessment Report (Appendix 4) states that it is not possible to specify the precise noise levels from the construction equipment until such time as a contractor is chosen and construction methods have been selected. However, working on predictive noise levels, those expected are well within the NRA guidelines stated levels and well below the lower threshold of 65dBA as defined in BS 5228-1:2009. Notwithstanding this the Construction and Environmental Management Plan (CEMP - Section 3.5) also sets out proposed mitigation measures to control construction noise.

Condition no. 9 (j)

7.3.4. As part of their response to the appeal, the applicant has highlighted possible financial and operational implications that the implementation of the planning authority's Condition no. 9 (j) may have on the project. The applicant states that the

submitted Noise Impact Assessment does not identify any significant impacts associated with noise emissions from the overall project nor are there any predicted noise levels considered being at risk of exceeding the noise limits set out in the EPA guidance (NG4 January 2016) and replicated in Condition 9 (j). Against this backdrop they state that there is limited value or practicality of the conditioned monitoring in the context that solar arrays and ancillary infrastructure have inherently low operational noise emissions. The applicant also highlights that the Board has generally adopted this rationale in their assessment of other solar PV developments and have consistently decided not to condition annual noise monitoring when granting permission for this type of development. Therefore, they request that should the Board grant permission for the proposed development, Condition no.9 (j) should be removed from the schedule of conditions. Having regard to the foregoing and having considered the results of the NIAR, I do not consider that the proposed development would have any undue adverse operational noise impact on property in the vicinity and therefore I do not consider there is any need for specific operational noise monitoring of the project. The measures outlined in the CEMP will address construction noise impacts and I am satisfied that these can be addressed by condition in relation to the CEMP.

Traffic and Transportation Impacts

7.3.5. The appeal includes concerns relating to the volumes of traffic expected as a result of construction activities and the resultant noise/disturbance and air pollution impacts that may occur in the area. A Traffic, Transport and Access Report is included as Appendix 10 of the submitted PER. This report states that construction traffic on average would only lead to a temporary increase of c. 3% to traffic volumes on the L2210 local road over the course of the construction phase and a temporary increase of c. 2% on the R156 Regional Road. As such the temporary additional traffic does not exceed 5% of the traffic flow on the adjoining roads or at junctions, therefore, in accordance with the NRA Traffic and Transport Assessment Guidelines 2014, the impact would not be considered significant. Regarding operational traffic volumes, the applicant states that these will not constitute an increase or intensification in the use of the L2210 compared to current traffic volumes generated from agricultural operations on site. Therefore, the impact of the development when operational is considered negligible.

7.3.6. It is anticipated that the overall construction will last approximately 75 weeks and the total number of construction staff on site will vary during construction phase of the works but are expected to peak at approximately 60 no. persons. The construction of the solar farm is expected to require 1,402 HGV deliveries over an 18-month construction period, with a maximum of 30 HGV deliveries in any one day. The application will therefore not have a significant impact on the local public road network. Nonetheless mitigation measures are proposed under Section 5 of the Traffic, Transport and Access Report to reduce the impact of the additional traffic, these measures include a detailed Site Traffic Management Plan which is to be prepared prior to commencement of construction and submitted to Meath County Council for written approval. This plan would include specific measures to reduce the impact of trip generation during construction and to minimise any potential safety hazard. The requirement for submission of a detailed Site Traffic Management Plan for agreement of the planning authority prior to commencement of development can be included as a condition, should permission be granted.

7.3.7. Possible impacts as a result of construction traffic in relation to dust and air pollution have also been raised by the appellants. Potential for dust during the construction phase is outlined in the PER. These issues were addressed under Section 5.1 of the PER and subsequently in the applicant's response to appeal on pages 33 and 34 respectively. The PER states that the potential for dust emissions from the proposed development will only occur during construction and decommissioning phases and therefore these effects can be described as temporary. The overall effect of dust nuisance and or loss of amenity for the construction phase is described as 'low risk without mitigation'. I also note that as further discussed in the CEMP (Appendix 3 of PER), Ecological Impact Assessment (Appendix 7 od PER) and Natura Impact Statement (NIS) localised effects from potential dust emissions on flora and fauna are not considered significant. Notwithstanding this, Section 3.4 Dust Control of the CEMP sets out several mitigation measures which will limit dust emissions and prevent construction debris arising on the public road network during the construction phase of development. While I acknowledge that some construction nuisance to local residents is an inevitable impact of development, I am satisfied that the mitigation measures included in the CEMP to reduce dust nuisance and minimise impact on air quality are adequate to address these concerns. The requirement for

submission of a finalised Construction and Environmental Management Plan for the agreement of the planning authority prior to commencement of development can be included as a condition, should permission be granted.

Site Access

7.3.8. As part of the proposal the existing site access was assessed and determined to be unsafe and unsuitable to accommodate the proposed development traffic. It is therefore proposed to close this entrance and create a new bellmouth entrance c. 30 meters to the northeast. This would function as a shared access point for the existing farmyard and stables as well as for the proposed solar farm and substation development during its construction and operational phase. Based on the week long ATC traffic speed data collected, the design speed of the receiving road (L2210) along the frontage of the proposed development site was calculated to be 71.97km/h. The corresponding desirable minimum stopping sight distance (SSD) is 120 meters. A relaxation is proposed by the applicant which would allow a SSD of 90 meters at the site entrance with a setback of 2.4 meters. I considered the relocation of the main site entrance an improvement on the existing situation and based on an analysis of the vertical and horizontal geometry I am satisfied that the site can be accessed safely and appropriately in accordance with the requirements of the TII and the operative development plan standards. I consider it reasonable to include a condition in relation to the establishment of this entrance and appropriate sightlines in agreement with the planning authority prior to commencement of any development in the event of grant of permission.

7.4. Landscape and Visual impact

7.4.1. A 'Landscape and Visual Impact Assessment' (LVIA) was submitted as Appendix 8 of the applicant's PER. This included an assessment of the proposed Solar PV development and the separately proposed 110kV substation and grid connection infrastructure; thus, I am satisfied that the cumulative visual impacts of nearby relevant developments has been considered. I consider that the LVIA submitted, and photomontages included in same are an accurate reflection of the impact that the proposed development would have, and it is sufficiently detailed. Though based on the previous County Development Plan (2013-2019), there would be no material

difference had it been prepared in accordance with the current operative plan (2021-2027), which came into effect after the appeal had been received by the Board.

7.4.2. Using terrain-modelling techniques combined with the proposed development specifications a map was created identifying surrounding areas from where the proposed site may be theoretically visible, this Zone of Theoretical Visibility (ZTV) is the area within which views of the proposed development can be theoretically obtained determined by the topography of the area. The ZTV Map was produced using a representative height of 2.75m for the solar PV array height and a standardised height of 1.5m to represent a viewer's eye level.

7.4.3. The proposed development site is located with an area defined as 'central lowlands' under the Landscape Character Assessment (Appendix A.05 of the operative CDP) which is defined as having 'moderate sensitivity' to development and I note that the site currently benefits from significant and robust landscaping hedgerows with natural vegetation along both its perimeter and the applicant's overall landholding. The main site area itself and the primary proposed location of the solar PV panels are located at minimum c.520m from the nearest public road to the south east (the L2210) and c. 620m from the nearest public road to the northwest (L6209), and given the low lying topography of the land, which ranges from 75m OD in the southwest with some elevated areas up to 96m OD in the eastern most sections of the site, the majority of the site is not visible from the surrounding public roads.

7.4.4. 9 no. Viewshed Reference Points (VRP) have been assessed for possible impacts. The LVIA indicates that while there would be some glimpse views of the proposed panels from VRP1, VRP4 and VRP9, there would be a minor/imperceptible effect on their visual amenity. It is noted that the visibility of the proposed development from these viewpoints are distant views and they would be significantly reduced from slight views to no view during the spring/summer months when vegetation is fuller. VRP 2, VRP3, VRP5, VRP6, VRP7 and VRP8 would experience either no views or slight long distant views where the overall character and composition of the receiving environment remains unaltered, suggesting a no change effect. There would be no views of the proposed substation and grid connection elements from any of the VRPs.

7.4.5. The most significant landscape feature within the wider setting of the proposed development is the Hill of Tara, which has national and international importance and is located c.12km to the northeast of the proposed site. While I acknowledge the appellant's concerns in relation to potential impacts on the surrounding historical landscapes e.g. Boyne Valley and Tara Skyrne Hills, I note that there are no views of the proposed development from the Hill of Tara due to the topography of the Tara Skyrne Hills to the east of the site and therefore I am satisfied that this historical site will not be impacted by the proposal.

7.4.6. In the context of cumulative effects, Knockstown Solar Farm (P.A. Ref. RA170766) located c3.5km to the southeast is very similar in nature but on a smaller scale (23.6ha) then the proposed development. The VRP8 on the L6213 (to the south east) was selected as a specific viewpoint for cumulative impact assessment informed by the ZTV analysis. The assessment shows that there would be 'imperceptible to no change' cumulative visual impact from the combination of two solar projects together from any representative viewpoints within the study area.

7.4.7. Mitigation measures on the proposed site include proposed new hedgerow at the site entrance to replace the existing wall and gate which are to be removed. This would mitigate and screen distant views of the solar farm from the residential house located opposite the site entrance. Notwithstanding the mitigation, the submitted LVIA demonstrates that the proposed development and the possible future 110kV substation and grid connection infrastructure can be successfully accommodated and assimilated into the surrounding landscape.

7.4.8. In conclusion, having regard to the content of the LVIA, to the relatively flat nature of the site, the extent of existing and proposed landscaping and screening at particular locations, the buffers to be provided, and the limited height of the proposed solar panels, I consider that the proposed solar farm would not have an undue adverse impact on the visual amenity of the area

<u>Glint and Glare</u>

7.4.9. Appendix 9 of the applicant's PER comprises a 'Glint and Glare Impact Assessment', prepared by Bioxl Ltd. dated February 2021. Regarding the concerns raised by the appellant in relation to potential glint and glare impacts on aviation, the modeled flightpaths and results show no predicted reflectance at the airfields within the survey

area. Trim and Ballyboy Airfields are situated north of the proposed development and as the solar arrays are proposed to be tilted at 20° in the southerly orientation the potential for reflectance is naturally limited. Moyglare Airfield is located c.12km south of the development and no reflectance is predicted. The assessment demonstrates that the impact of glint and glare reflectance on local residential receptors, road users and aviation/flight path receptors is assessed to be negligible. In conclusion, having reviewed the submitted information I consider that the proposed solar farm development would not result in undue adverse glint and glare impact in the area.

Decommissioning

7.4.10. The development will result in a change of existing farming practice from livestock and tillage to one of renewable energy production with new pasture and improved hedgerows. This is predicted to have a neutral to beneficial effect and this effect will be long term and reversible as the development is anticipated to be in the landscape for 35 years. Following the end of its life and commercial and environmental appraisal of the solar farm will be undertaken in order to assess whether or not the solar farm should be replaced in its entirety by new solar panels (subject to planning permission being obtained) or alternatively whether this site should be terminated in relation to electricity generation i.e. decommissioned. The proposed adjoining on-site 110kV substation (if approved) will remain in place as it will be under the ownership of the ESB/EirGrid. Upon decommissioning an environmental appraisal will be undertaken to inform the decommissioning strategy. Any foundations present would generally remain in place underground and would be covered with earth and reseeded as appropriate. Leaving the piling in situ is considered a more environmentally prudent option, as removing piling could result in significant impacts on the agricultural lands. Underground internal collector cables are also typically removed and sent to an authorised waste recovery facility with ducting left in place, however this is determined on a case-by-case basis. The decommissioning process is expected to take up to 6 months and following this the site would be allowed to revert to agricultural use naturally. Subsequently any likely predicted effects will then be reduced to neutral at the end of the life cycle of the development.

7.4.11. I consider that the standard condition relating to decommissioning/site reinstatement would be appropriate.

7.5. Loss of Agricultural Land/ Ecology

7.5.1. The grounds of appeal cite concerns over the permanent loss of agricultural land (a finite resource) as a result of the proposed development and that therefore it is an inappropriate land use. Impacts on wildlife and biodiversity are also referenced. These issues are considered further in the sections that follow and also under Section 8 of this report.

Loss of Agricultural Land

7.5.2. I note the site's location on agricultural lands that are outside any designated settlement. As stated previously, there is no national guidance in relation to the location of solar energy facilities and although I acknowledge that national policy in relation to agriculture seeks to increase agricultural productivity, the scale of the proposed facility is such that it would not be likely to compromise this strategic objective. The proposed development would be decommissioned after 35 years and reinstated again as farmland (unless further approval is obtained) and the applicant states that due to the nature of the proposed development the decommissioning of the solar array would be of a short-term duration with limited ground disturbance. Upon decommissioning the site will be returned to agricultural production without any loss to finite resources. In addition, the applicant states that the absence of more intensive farming activity will also reduce soil compaction allowing soils to become naturally aerated overtime thus improving the soil's water acceptance potential and reduce runoff rates from the site.

7.5.3. Having regard to the content of the appeal, while acknowledged that the PV solar farm would have an impact on agricultural productivity on site for the lifetime of the development, I do not agree that the proposed development would result in the permanent loss of agricultural land and would therefore be inappropriate. Furthermore, the relevant policy framework acknowledges that renewable energy developments in rural areas are reasonable locations in principle.

Ecology

7.5.4. An Ecological Impact Assessment (EcIA) was submitted as part of the application which provided an overview of ecology within the proposed development site as well as identifying, quantifying and evaluating the potential effects arising from the construction and operation of the development on habitats, species and ecosystems

in the surrounding area. The report outlines that only a small amount of land would be lost to piling, power station structures, access tracks and other site infrastructure (battery storage container) and therefore habitat loss effects from the solar farm will not be significant. Although there is potential for disturbance to mammals and birds during construction these impacts would be temporary and not significant.

7.5.5. Downstream effects on aquatic ecology outside the development site from sediments generated during construction or fuel spills, concrete and other site compounds are acknowledged, as also is the ecological connectivity with downstream water courses e.g. Knightsbrook River (known to support Atlantic salmon, brown trout and river lamprey). The EcIA acknowledges that in the absence of mitigation the solar farm project is predicted to have significant negative effects at the local scale on aquatic ecology, therefore a strong suite of mitigation measures and enhancement measures are listed within Section 5 of the report. Mitigation measures include those to address any potential impacts to water quality which include mitigation by design e.g. two proposed clear span bridges at both proposed water crossings and water quality mitigation detailed in the CEMP. Mitigation measures will also include proper site management during construction to ensure that all necessary measures are taken to prevent sediment runoff and other pollutants from entering any water courses in the vicinity.

7.5.6. The appeal also raises concerns in relation to the potential risk of adverse ornithological impacts arising from the proposed development. In response to this the applicant states that in undertaking the EcIA a comprehensive field survey was completed of the site in January 2021 and during the course of this field survey plant and animal species and other ecological features of interest were recorded. The bird fauna recorded at the site comprised species common to agricultural landscapes and furthermore it was determined that the proposed development site is highly unlikely to provide important habitat to species of high conservation concern. There was also no evidence that the site is regularly used by flocks of wintering waterfowl nor is there any evidence that the site is on a significant flight path. The applicant states that from a review of evidence on the effects of solar farms on biodiversity that there is likely to be more of a collision risk to birds from overhead power lines which are already present on site than from solar arrays.

7.5.7. In addition to mitigation measures, enhancement measures are also proposed in the EcIA. These include the establishment of species rich semi-natural grassland on the solar farm site, including setbacks between the solar farm fence and adjacent hedgerows and archaeological exclusion zones by reseeding with appropriate conservation seed mixes. This species rich grassland will be managed without the use of fertilizers or pesticides and landowners have committed to conservation management using sheep grazing or mowing. The applicant states that once these species rich grasslands are established and properly managed the net effects of the habitat changes caused by the solar farm project on biodiversity will be significantly positive at the local scale.

Conclusion

7.5.8. In conclusion, I consider the proposed development would not result in the permanent loss of agricultural land and would not have any undue adverse impact on biodiversity. Mitigation measures in relation to the habitats and flora noted on site are listed within Section 5 of the submitted EcIA. It is noted that no bespoke mitigation measures are required for the protection of any European sites. A separate NIS to assist in the competent authority's Appropriate Assessment has been submitted in addition to the EcIA and the details of same are discussed further under Section 8 of this inspector's report below. I generally concur with the observations and conclusions contained within the EcIA and I consider that the issues raised in the submissions, as relate to Ecology, have been adequately addressed. I am satisfied that provided all mitigation measures are implemented in full and remain effective throughout the lifetime of the development, no significant negative residual impacts on the local ecology or on any designated nature conservation sites, are expected from the proposed works.

7.6. **Environmental Assessments**

7.6.1. The grounds of appeal cite concerns in relation to the proposed development's compliance with the EIA, SEA and Habitats Directives. In relation to the EIA Directive I have already assessed the current proposal for compliance with same under Section 5.7 of this report. In relation to the Habitats Directive a full Appropriate Assessment of the proposal is carried out under Section 8 below and therefore shall not be repeated in this section.

7.6.2. Concerning SEA, I note that the appellant believes that the current proposal is contrary to the SEA Directive as they state same directive provides that programmes, plans and projects should be conducted as a whole and not in isolation, and in the case of the current proposal the applicant has proceeded straight to project level without first considering the two earlier stages of the process e.g., plans and programmes. Having examined the appeal, I would not concur with the appellant's assertion on this subject. The European Union's SEA Directive (2001/42/EC) requires an environmental assessment be carried out for all plans/programmes or amendments to plans/programmes which are prepared for certain specified sectors outlined within the directive. The proposed development represents a project level development and does not comprise either a plan or programme as outlined in the SEA Directive, it is therefore clear that the proposal does not require SEA as part of the provisions of the SEA Directive or its provisions as transposed into Irish law under either S.I. No. 435 of 2004 European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) or S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended by S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011).

7.6.3. In addition to the above, I note that the operative CDP has been subject to SEA to predict and evaluate the likely environmental effects of implementing the plan, including policy in relation to future renewable development.

7.7. Archaeology and Cultural Heritage

7.7.1. The grounds of appeal cite several concerns relating to the archaeological heritage of the area and the significance of the area considering the proximity of the Boyne Valley and the Hill of Tara, as well as the general location of the area within the very popular tourism region of Ireland's Ancient East. One recorded monument is located within the site boundary, an enclosure in Field 8 (SMR no. ME043-008). I note the submitted Archaeological Assessment (Appendix 11 of PER) mistakenly lists three within the site boundary however having examined the NMS records on https://maps.archaeology.ie/HistoricEnvironment/ I note that three of these recorded

monuments are in fact located immediately adjacent to the site boundary, these comprise a church and graveyard to the south of Field 2 (SMR no. ME043-007 and ME043-007001) and an enclosure to the north of Field 13 (ME043-009), however I acknowledge that the 'zones of notification' of both SMR no. ME043-007 and ME043-007001 do expand to within the site boundary. Within a further 500 meters of the limits of the proposed development there are an additional five recorded monuments. Within one kilometer outside the proposed development area there are a further 40 archaeological sites, 29 of which are recorded monuments. It is therefore clear that this area is steeped in archeological heritage and therefore needs to be considered appropriately.

7.7.2. Following a consultation response from the National Monuments Service and the request for further information from the planning authority on foot of this response, the applicant commissioned a licensed archaeological geophysical survey across the surveyable area (85ha of the 91ha footprint of the site). An initial 40ha of the site was surveyed in June 2021 however specific sections of the remainder of the site were not accessible for geophysical surveying due to standing arable and hay crops. The completed survey identified areas of archaeological interest and provides a strong preliminary indication of the main areas of archaeological potential across the development site. The results of this initial survey (June 2021) were submitted to the planning authority as part of the response to the further information request. A series of corresponding preconstruction archaeological mitigation measures were also committed to therein. Following receipt of this information the planning authority subsequently consulted with the NMS for a second time. The NMS responded in August 2021 and noted the applicant's commitment to complete the archaeological impact assessment in full (for the entire site) and to mitigate known and potential impacts on archaeological remains by means of adjustments to site layout and design together with conservation measures and the mitigation measures outlined in Section 2.11 of their Response to Request for Further Information. The NMS also included archaeological mitigation recommendations which the planning authority subsequently incorporated into Condition no.19 of their grant of permission. The second response from the NMS contained no objection to the proposed development.

7.7.3. The applicant states that they remain committed to formulating an archaeological mitigation strategy that facilitates the maximum extent of preservation in situ of significant archaeology on site. Significant archaeology will be preserved in situ due to the inherent flexibility in the arrangement of the solar array and through the use of archaeological mitigation measures which will include but are not limited to the following:

- a combination of exclusion zones and buffer zones to protect newly identified and potential archeologically significant sites or features identified during geophysical survey.
- advanced archaeological testing followed by preservation in situ/preservation by record (as required).
- the utilisation of precast concrete blocks (concrete feet) for securing solar panels in areas of potential archaeology and archeologically sensitive features and archaeological monitoring of any ground disturbance in the areas outside of these zones.

7.7.4. Having regard to the information submitted with the application, the reports of the planning authority and the comments of the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (NMS) and the Department of Housing, Local Government and Heritage, subject to the attachment of a condition requiring the completion of the Archaeological Impact Assessment and appropriate archaeological mitigation and monitoring of the construction phase of the proposed development, I conclude that the proposed development will accord with the objectives set out in the County Development Plan in relation to the conservation of items and areas of archaeological interest and would not have any undue adverse impact on the setting of the nearby historical Boyne Valley or Hill of Tara.

7.8. **Other Matters**

Community Benefit and the Renewable Energy Support Scheme (RESS)

7.8.1. The appellant raised concerns in their appeal submission in relation to the RESS stating that the grant incentives that it affords encourages these applications for resource hungry solar developments that may not always be appropriate or warranted. In response to this concern the applicant has stated that they

acknowledge that the appellant is correct in that the RESS is a significant market facilitator in commencing the construction of consented commercial solar PV farms, however, this should not be perceived as a negative force when considering the overall aim of the scheme which seeks to deliver on an ambitious renewable electricity policy and the implementation of the CAP 2021 and its strategic approach to successfully securing the required 80% renewable electricity target by 2030.

7.8.2. In addition to the applicant's response, I also note the third-party observation received on appeal from Emmet Egan in support of the scheme and the applicant's commitment to provide a community benefit fund outside of the RESS. This commitment from the applicant was outlined in the FI response received by the planning authority and is a welcomed pledge.

Other Concerns

7.8.3. Other issues raised as part of the appeal relate to matters concerning human rights and exploitation of workers in other countries where materials for the solar panels are sourced. Consideration of this issue is considered outside of the remit of this assessment. In addition, concerns were raised regarding the sourcing of aggregates and lack of detail in the application. The appellant queried if the supply of aggregate would be from authorised operations/locations. In response to this query the applicant states in their appeal response that the source of aggregate supplies will be finalised prior to the commencement of construction, though they can confirm that any said supplies will be sourced from a fully authorised quarry as per the EPA's Extractive Industries Regulation Portal and as close to the site as possible in order to limit NO^2 emissions. The applicant also states that the proposed development will use relatively little concrete as it is only required for the foundations of the CCTV basis, as plinths for the MV power stations and the BESS modules and the 2 no. clear span bridges. I also note that 'concrete feet' may be necessary for securing solar panels in areas of potential archaeology (see Section 7.7 above) however it is not expected that these 'feet' will be required in large numbers.

7.8.4. In addition, the appeal raised concerns in relation to the use of possibly toxic materials and the resultant impacts that any run off from the solar PV array may have on groundwater and surface watercourses. The applicant in response has stated that the proposed solar panels are comprised of crystal silicon which is

manufactured from sand and consequently there are no metals/contaminants within the panels which could run off and discharge to the underlying aquifer or surface water. I am satisfied that the potential impacts of stormwater runoff from the proposed development and subsequent discharge to the receiving environment has been comprehensively assessed within the PER (Lands, Soils and Hydrogeology and Flood Risk).

7.8.5. In response to the appellants concerns raised in relation to fire/electrical safety on site, the applicant has stated that in the event of favorable consideration and prior to construction commencing the appointed contractor will prepare a fire safety risk assessment (FSRA) for the site. In relation to safety, the conditions of the Safety, Health and Welfare at Work (Construction) Regulations 2006 will be adhered to. I consider this response satisfactory.

Flood Risk

7.8.6. A Stage 3 Flood Risk Assessment (FRA) (Appendix 6 of the PER) was submitted with the planning application. The assessment found that the risk of pluvial, groundwater and coastal flooding associated with the development was minimal, however a number of water courses were identified within or adjacent to the proposed development site - the Clonymeath River, the Dangan River, an OPW Arterial Drainage Channel and an unnamed stream. The northern site area is shown to be partially situated in Flood Zone A where the probability of flooding is greater than 1% from fluvial flooding. Based on the results of hydraulic modeling sensitive elements (solar panels, electrical inverters and battery systems) are all located in Flood Zone C i.e. they are not predicted to flood during a 1000 year event. Concerns were raised by the planning authority in relation to the potential impacts of 50% blockage at the 2no. proposed clearspan bridges. Based on the results of the updated hydraulic analysis (submitted in response to further information) it was predicted that a 50% blockage scenario on both bridges will increase flood levels locally up to 0.05m during a 100 year MRFS events. It was therefore determined that the residual flood risk due to blockage at the new and proposed replacing bridges across the Clonymeath River is minimal.

7.8.7. The submitted Geology and Hydrogeology Assessment (Appendix 5) and Stage 3 Flood Risk Assessment set out detailed mitigation measures regarding the design,

construction and maintenance of the proposed development which have been incorporated within the submitted CEMP. In the context of potential stormwater runoff, the CEMP emphasises that the protection of all water courses and catchments surrounding the site is of utmost importance in considering the most appropriate drainage proposals for this site. The drainage proposal has therefore been designed specifically with the intention of having no negative impact on water quality and consequently no impact on downstream catchments and ecological ecosystems. The solar panels would be raised above the ground and as such any rainfall that is intercepted by the panels will run off and spread out and infiltrate into the rain shadow beneath the panels. The existing runoff regime will remain unchanged as a result of the proposed development.

7.8.8. Having regard to the documentation submitted with the application, the fact that sensitive elements of the proposal are to be located within Flood Zone C only, that solar panels are constructed for external use and to withstand weather events, and the limited depth of any anticipated flood extent including the results of the revised Stage 3 FRA (which takes account of any residual floor risk from 50% culvert blockages), I am satisfied that the application site is an appropriate location for the proposed development and that proposed development will not give rise to unreasonable risk of flooding within the application site or to areas outside the application site.

8.0 Appropriate Assessment

Appropriate Assessment – Screening

8.1. Compliance with Article 6(3) of the Habitats Directive

8.1.1. The requirements of Article 6(3) as related to Appropriate Assessment of a project under Part XAB, Section 177U and 177V of the Planning & Development Act, 2000 (as amended) are considered fully in this section.

8.2. Background on the Application

8.2.1. The applicant has submitted a Natura Impact Statement (NIS) as part of the planning application prepared by Blackthorn Ecology, dated 16th March 2021. The applicant's Stage 1 AA Screening Report outlined within Section 5 of the document was prepared in line with current best practice guidance and provides a description of the proposed development and identifies European Sites within a possible zone of influence of the development. The applicant's AA Screening Report concluded that '*it was not possible to rule out the potential for significant effects of the proposed solar farm project and future 110kV substation development on the Natura 2000 sites listed in Table 5. Therefore, Stage 2 AA is required and is presented in Section 6'*.

8.2.2. Having reviewed the documents and submissions received from interested parties, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

8.3. Screening for Appropriate Assessment- Test of likely significant effects

8.3.1. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).

8.3.2. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.

8.4. Brief Description of the Development

8.4.1. The applicant provides a comprehensive description of the project on pages 4 to 17 of the AA Screening Report (Section 5 of the NIS) and elsewhere e.g. Chapter 3 of the Planning and Environmental Report. A summary of the main elements of the proposed development is outlined under Section 2 of this report.

8.4.2. The development site and existing environment is described in pages 18 to 24 of the submitted NIS (Section 3.2). Habitat and species surveys were conducted by qualified ecologists employed by the applicant and the site is described as comprising predominantly Improved Agricultural Grassland (Fossitt Classification GA1). A large field on the eastern part of the site supports Arable Crops (BC1) and sections of Wet Grassland (GS4) are present on some low-lying parts of fields in the southern part of the site, this grassland is semi-improved and species poor. At the margins of the tillage field, damp, tussocky and unmanaged areas of grassland were mapped as Wet Grass Land/Dry Meadows Mosaic (GS4/GS2). Along the main access route, south of the main solar farm site, Hedgerows (WL1) typically averaged 3m in height and comprised hawthorn, grey willow and bramble. Somewhat taller (5-6m) ash trees were occasionally present, and one hedgerow supported mature 12m tall beech and ash trees. Dry or muddy ditches were associated with most hedgerows, but only two wet, well developed, but heavily shaded Drainage Ditches (FW4) were present in the area. Within the main solar farm site most hedgerows were similarly scrappy with shrub layers dominated by Hawthorn and Bramble. The most prominent habitat in the southern part of the proposed site was a 15-20m tall beech Treeline (WL2) on a 1.5m high earth bank. A stone-walled enclosure exists on the western side of the site and a wall crosses the center of the site, all of which fall under the stone walls and other stonework (BL1) classification. Drainage Ditches (FW4) were associated with several field boundaries in the southern part of the study area. 3 no. Depositing/Lowland Rivers (FW2) are present along the proposed access routes to the south of the main site. The first Springvalley Stream is located approximately 260m west of the entrance from the public road and the proposed access route is to run parallel to this stream for approx. 185m. The proposed access route will then cross two watercourses, the first is the Clonymeath River. This river is circa. 2.5 meters wide with the width of the top of the channel circa. 6 meters. A new clear span bridge is proposed at this point. It should be noted that EPA mapping incorrectly shows the course of this river further to the north in the place of an

unnamed watercourse which is much narrower. This water course (185m to the north of the Clonymeath) is in fact an OPW arterial drainage channel. A new crossing would also be required at this point on the proposed access road. At the crossing point the watercourse is circa. 1.5 meters wide. All drains in the southern parts of the site flow eventually into the Clonymeath River, whereas drains in the northern part of the site flow into the Ballynamona River which is c. 60m from the proposed site boundary. The Clonymeath River joins the Ballynamona River c.1.3km downstream and west of the future 110kV substation, forming the Dangan River. From there the Dangan River flows north-west and is joined by several minor watercourses to eventually form the Knightsbrook River. The Knightsbrook in turn flows north-eastwards to join the River Boyne just downstream of Trim. The Knightsbrook of which the Clonymeath is a tributary, is known to support Atlantic salmon, brown trout and lamprey. Signs of otter were not detected during the field survey of the project site and there are no historic records of otter on the site. Kingfisher was not recorded during the field survey and again there are no records of this species held by the NPWS or the NBDC along the Clonymeath or Knightsbrook rivers. The nearest records are from the River Boyne both upstream and downstream of Trim.

8.4.3. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- Construction related - uncontrolled surface water/silt/ construction related pollution.
- In-combination effects with other projects including the possible future 110kV substation development on adjoining site (ABP Ref. VC17.310076).

8.5. Submissions and Observations

8.5.1. None received in relation to natural heritage concerns.

8.6. European Sites

8.6.1. The development site is not located in or immediately adjacent to a European site. The closest European sites are the River Boyne and River Blackwater SPA (Site Code: 004232) and the River Boyne and River Blackwater SAC (Site Code: 002299),

both within 5.9 Km of the proposed development and c. 12.5km downstream of the project.

8.6.2. A summary of European Sites that occur within 15 km/within a possible zone of influence of the proposed development is presented in the table below. Where a possible connection between the development and a European site has been identified, these sites are examined in more detail.

8.6.3. **Table 8.1** Summary Table of European Sites within a possible zone of influence of the proposed development.

European Site (code)	**List of Qualifying interest /Special conservation Interest**	**Distance from proposed development (Km)**	**Connections (source, pathway receptor)**	**Considered further in screening Y/N**
River Boyne and River Blackwater SAC [002299]	Alkaline fens [7230] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Lampetra fluviatilis (River Lamprey) [1099] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355]	5.9km north.	Yes – hydrological connection 12.5km downstream from site.	Y
Rye Water Valley/Carton SAC [001398]	Petrifying springs with tufa formation (Cratoneurion) [7220] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	13.5km south east.	No – no connection to site.	N - outside of any zone of influence of the development due to the lack of ecological connections to the specific habitat type and species for which the site is designated.
River Boyne and River	Kingfisher (Alcedo atthis) [A229]	5.9km north.	Yes – hydrological connection	Y

Blackwater SPA [004232]			12.5km downstream from site.	

8.6.13. Following the screening process, it has been determined that Appropriate Assessment is required, as it cannot be excluded on the basis of objective information that the proposed development individually or in-combination with other plans or projects will not have a significant effect on the following European site:

- River Boyne and River Blackwater SAC [002299]
- River Boyne and River Blackwater SPA [004232]

8.6.14. The possibility of significant effects on those other European sites listed in Table 8.1 has been excluded on the basis of objective information.

8.7. Mitigation Measures

8.7.1. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

8.8. Screening Determination

8.8.1. The proposed development was considered in light of the requirements of Section 177U of the Planning and Development Act 2000, as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could have a significant effect on the following European Sites: the River Boyne and River Blackwater SAC [002299] and the River Boyne and River Blackwater SPA [004232], in view of the sites' Conservation Objectives, an Appropriate Assessment (and submission of a NIS) is therefore required.

8.9. Appropriate Assessment

8.9.1. The requirements of Article 6(3) as related to Appropriate Assessment of a project under Part XAB, Section 177V of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive.

- The Natura Impact Statement and associated documents.
- Appropriate Assessment of implications of the proposed development on the integrity each European site.

8.10. **Compliance with Article 6(3) of the EU Habitats Directive**

8.10.1. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

8.10.2. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).

8.11. **The Natura Impact Statement**

8.11.1. The application included a 'Natura Impact Statement' (NIS) prepared by Blackthorn Ecology dated 16th March 2021, which examines and assesses potential adverse effects of the proposed development on both the River Boyne and River Blackwater SAC and SPA. It is a detailed document which provides information and appraises the potential that both the proposed solar farm and other relevant projects in combination with this (e.g. proposed future 110kV substation) would have on the integrity of the relevant European sites in view of best scientific knowledge and the conservation objectives of the sites. The NIS was prepared in line with current best practice guidance and contains, inter alia, a description of the proposed development, the legislative background, detailed commentary on the two relevant European sites, an overview of the potential indirect impacts that could occur, consideration of the in-combination effects, mitigation measures and an assessment of same and conclusion.

8.11.2. The applicant's NIS concluded stating provided that the listed '*mitigation measures are fully implemented, there will be no significant effects on the conservation objectives of the River Boyne and River Blackwater SAC or the River Boyne and River Blackwater SPA arising from the proposed solar farm and future 110kV substation'* it further goes on to state '*The information in this NIS ensures that the competent authority is capable of determining that all reasonable scientific doubt has been removed as to the effects of the proposed project on the integrity of the relevant Natura 2000 sites. In light of the conclusions of the assessment which it shall conduct on the implications for the Natura 2000 sites concerned, the competent authority is enabled to ascertain that the proposed project will not adversely affect the integrity of any of the Natura 2000 sites concerned'*.

8.11.3. No issue specific to AA was raised by any prescribed bodies. The submitted third party appeal outlines the appellants dissatisfaction with the quality of Appropriate Assessment under the EU Habitats Directive and states that the Board should examine the 'Natura Impact Assessment' in more detail. They state that the Board should also examine the issue of run-off in greater detail and possible impacts of pollution from chemical/metal escape to groundwater.

8.11.4. Having reviewed the documents, I am satisfied that the information submitted by the applicant allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the River Boyne and River Blackwater SAC and SPA.

8.12. Appropriate Assessment of Implications of the Proposed Development

8.12.1. The following is a summary of the objective scientific assessment of the implications of the project on the Qualifying Interest (QI) and Special Conservation Interest (SCI) of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. Given the nature of the proposed development, and the nature, type, and QIs/SCIs of the European sites potentially affected, similar considerations apply to both.

8.12.2. For the purpose of clarity, the following sites are subject to Appropriate Assessment:

- River Boyne and River Blackwater SAC (Site Code 002299)

- River Boyne and River Blackwater SPA (Site Code 004232)

8.12.3. A description of the sites and their QI/SCI, including any relevant attributes and targets, are set out in the NIS, and summarised in Tables 8.2 and 8.3 of this report as part of my assessment. I have also examined the Natura 2000 data forms as relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website (www.npws.ie).

8.13. Aspects of the Proposed Development that could affect Conservation Objectives

8.13.1. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the sites arise from potential surface water pollution during the construction phase given the hydrological link between the solar farm site and the European sites. No aspects of the operational phase of development have been identified that could affect the conservation objectives.

8.13.2. Tables 8.2 and 8.3 summarise the AA and site integrity test. The conservation objectives for the two European sites have been examined and assessed with regard to the identified potential significant effect and all aspects of the project, alone and in-combination with other plans and projects. Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise, and definitive conclusions reached in terms of adverse effects on the integrity of the European site.

Table 8.2: River Boyne and River Blackwater SAC [002299]					
Summary of key issues that could give rise to adverse effects: • **Water quality impacts due to pollutants or soil/sediment run-off during construction phase** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002299.pdf**					
Summary of Appropriate Assessment					
Qualifying interest feature	**Conservation objectives targets and attributes**	**Potential adverse effects**	**Mitigation measures**	**In-combination effects**	**Can adverse effects on integrity be excluded?**
Alkaline fens [7230]	To maintain the favourable conservation condition of alkaline fens	No – Alkaline fen habitat distribution is located in the vicinity of Lough Shesk, Freekan Lough, and Newtown Lough. None of these loughs are downstream of the proposal site and therefore could not be affected by the proposed development. An area of fen located at Ardsallagh is approx.. 22km downstream of the site, however this is located above the River Boyne river level and	N/A	No likely significant in-combination effects.	Yes – Habitat not within ZoI

		therefore could not be impacted.			
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padoin, Alnion incanae, Salicion albae [91E0]	To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padoin, Alnion incanae, Salicion albae).	No – The only location of alluvial forest set out in the conservation objectives document is greater than 50km downstream from the site. Any silt or other pollutants that may arise form the project would dissipate over that distance and not result in any adverse impact.	Best practice pollution prevention measures are set out on pages 38 and 39 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects'.
Lampetra fluviatilis (River Lamprey) [1099]	To restore the favourable conservation condition of river lamprey	Yes – Site is hydrologically linked to the SAC and river lamprey are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase.	Best practice pollution prevention measures are set out on pages 38 and 39 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects'.
Salmo salar (Salmon) [1106]	To restore the favourable conservation	Yes – Site is hydrologically linked to the SAC and salmon	Best practice pollution prevention measures are set out on pages	No likely significant in-	Yes – No doubt as to the effectiveness or implementation of mitigation

	condition of salmon	are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase.	38 and 39 of the NIS and include detailed measures to mitigate impacts to water quality.	combination effects.	measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects'.
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition of otter	Yes – Site is hydrologically linked to the SAC and otters may be sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.	Best practice pollution prevention measures are set out on pages 38 and 39 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects on the conservation objectives of the River Boyne and River Blackwater SAC'.
Overall conclusion: Integrity test Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SAC either alone or in-combination with other projects. No reasonable scientific doubt remains as to the absence of such effects.					

Table 8.3: River Boyne and River Blackwater SPA [004232]					
Summary of key issues that could give rise to adverse effects: • **Water quality impacts due to pollutants or soil/sediment run-off during construction phase** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004232.pdf**					
Summary of Appropriate Assessment					
Qualifying interest feature	**Conservation objectives targets and attributes**	**Potential adverse effects**	**Mitigation measures**	**In-combination effects**	**Can adverse effects on integrity be excluded?**
Kingfisher (Alcedo atthis) [A229]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	Yes – Site is hydrologically linked to the SPA and kingfisher may be sensitive to indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.	Best practice pollution prevention measures are set out on pages 38 and 39 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects on the conservation objectives of the River Boyne and River Blackwater SPA'.
Overall conclusion: Integrity test Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SPA either alone or in-combination with other projects. No reasonable scientific doubt remains as to the absence of such effects.					

8.14. Mitigation Measures

8.14.1. The proposed mitigation measures are set out under Section 6.3 on pages 38 and 39 of the NIS. This section lists the objective of the mitigation measures and the details of the mitigation. Best practice construction methods are to be implemented and water quality mitigation measures are to have due regard to the Inland Fisheries Ireland (IFI) Fisheries Protection Guidelines (IFI, 2016).

8.14.2. Mitigation measures will include proper site management during construction to ensure that all necessary measures are taken to prevent sediment runoff and other pollutants from entering any watercourse in the vicinity. In addition, a Construction Environmental Management Plan (CEMP) will be developed for the project which the contractor will be obliged to follow to remove any risk of a pollution incident. A maintenance schedule and operational procedure will be established by the contractor for silt and pollution control measures during the construction, which will be undertaken in consultation with the relevant statutory authorities.

8.14.3. Specific mitigation measures are categorised under two headings ‘Fuels and Concrete’ and ‘Sediments’. These detail a variety of measures which shall be implemented to eliminate the risk of negative effects on Natura 2000 sites from fuels, oils, concrete and other compounds used during solar farm construction, and also from sediments and siltation during construction. These measures include bunded areas, buffer distances from any watercourses, designated refueling areas, spill kits, impermeable cement washout areas, weather dependent activities (certain activities during dry weather only), surface drainage and silt control measures, specific aggregate for site access tracks, specific stockpiling areas and silt fences where required.

8.14.4. The proposed mitigation measures also take account of the MV power stations and possible future in-combination effects from future works involved for the 110kV substation.

8.14.5. I consider that the proposed mitigation measures for water quality impacts generally comprise relatively standard, well proven good practice measures for construction works in the vicinity of watercourses. I consider that the proposed measures, as well as the construction methodology, is suitably detailed to remove any lack of clarity

regarding potential adverse effects and that they are capable of being successfully implemented.

Operational Stage

8.14.6. No potential for significant increase in surface water run-off from the site during the operational phase has been identified and there would be no soil disturbance. Therefore, there would be no significant release of sediment. The proposed solar farm would not have a significant adverse effect on European sites when operational.

Decommissioning Stage

8.14.7. Potential decommissioning impacts would be similar to the construction stage. However, the level of soil disturbance would be significantly less.

In-Combination Effects

8.14.8. Existing and proposed plans and projects proximate to the site and those which may have an adverse in-combination impact are set out by the applicant in Section 5.2.6 of the NIS. These include a 23.6ha solar farm at Knockstown which is 3.5km south-east of the site, infilling and materials reclamation at a site c. 100m north of the subject site, an active sand and gravel quarry c. 710m north of the proposed solar farm and a bio renewable energy facility at Windtown c. 1.3km north-west of the subject site. I specifically note, in this regard, that the NIS has taken into consideration the separate elements of the overall proposed development i.e. the solar farm and the proposed 110kV substation development (ABP Ref. VC17.310076) in-combination with these projects. Section 6.3 sets out the mitigation measures proposed for the proposed project and considers that following the implementation of these there is no potential for adverse or significant in-combination effects on European sites.

Integrity Test

8.14.9. Following the Appropriate Assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA, in view of the Conservation Objectives of these sites. This

conclusion has been based on a complete assessment of all implications of the project alone and in combination with other plans and projects.

8.15. Appropriate Assessment Conclusion

8.15.1. The proposed solar farm development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning & Development Act, 2000 (as amended). Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on River Boyne and River Blackwater SAC (site code 002299) and River Boyne and River Blackwater SPA (site code 004232). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

8.15.2. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of European site Nos. 002299 or 004232, or any other European site, in view of these sites Conservation Objectives. This conclusion is based on a complete assessment of all aspects of the proposed project and there is no reasonable doubt as to the absence of adverse effects.

8.15.3. This conclusion is based on:

- a full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to the Conservation Objectives of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA.
- detailed assessment of the in-combination effects with other plans and projects including historical projects, current proposals and future plans.
- no reasonable scientific doubt as to the absence of adverse effects on the integrity of River Boyne and River Blackwater SAC.
- no reasonable scientific doubt as to the absence of adverse effects on the integrity of River Boyne and River Blackwater SPA.

9.0 **Recommendation**

9.1. I recommend that planning permission should be granted subject to conditions, for the reasons and considerations as set out below.

10.0 **Reasons and Considerations**

Having regard to:

(i) European, national, regional, and county level support for renewable energy development such as:

- the government's Climate Action Plan 2021
- the government's Project Ireland 2040 National Planning Framework
- the Regional Spatial & Economic Strategy 2019-2031 published by the Eastern and Midland Regional Assembly
- the Meath County Development Plan 2021-2027 as adopted by Meath County Council,

(ii) the nature, scale, and extent of the proposed development,

(iii) the documentation submitted with the application, including the Natura Impact Statement, Planning and Environmental Report and appendices, and the Construction and Environment Management Plan,

(iv) the nature of the landscape and any specific conservation or amenity designation for the site,

(v) mitigation measures proposed for construction, operation, and decommissioning of the site, and

(vi) the submissions on file including those from prescribed bodies, the planning authority, and other third parties,

it is considered that, subject to compliance with the conditions set out below, the proposed development:

- would be in accordance with European, national, and regional renewable energy policies and the provisions of the Meath County Development Plan 2021-2027,
- would not seriously injure the visual or residential amenities of the area, or otherwise, of property in the vicinity,
- would not interfere with a protected view and prospect of importance, or have an unacceptable impact on the character of the landscape or on cultural or archaeological heritage,
- would not have a significant adverse impact on ecology,
- would be acceptable in terms of traffic safety and convenience, and,
- would make a positive contribution to Ireland's renewable energy requirements.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

11.0 **Conditions**

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted on the 19th day of July 2021 and 6th day of August 2021, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.
2. The period during which the development hereby permitted may be carried out shall be 10 years from the date of this order.

Reason: Having regard to the nature of the development, the Board considers it appropriate to specify a period of validity of this permission in excess of five years.

3. Prior to commencement of development the MW output capacity of the proposed solar farm shall be submitted to an agreed with the planning authority.

   Reason: In the interest of clarity.

4. All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Planning and Environmental Report and its associated appendices, the Natura Impact Statement, the Ecological Impact Assessment and the Construction and Environmental Management Plan, and other particulars submitted with the application, shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.

   Reason: In the interests of clarity and of the protection of the environment during the construction and operational phases of the development.

5. (a) The permission shall be for a period of 35 years from the date of the commissioning of the solar array. The solar array and related ancillary structures shall then be removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.

   (b) Prior to commencement of development, a detailed restoration plan, including a timescale for its implementation, providing for the removal of the solar arrays, including all foundations, anchors, inverter/transformer stations, control building, CCTV cameras, fencing and site access to a specific timescale, shall be submitted to, and agreed in writing with, the planning authority.

   (c) On full or partial decommissioning of the solar farm, or if the solar farm ceases operation for a period of more than one year, the solar arrays, including foundations/anchors, and all associated equipment, shall be dismantled and removed permanently from the site. The site shall be restored

in accordance with this plan and all decommissioned structures shall be removed within three months of decommissioning.

Reason: To enable the planning authority to review the operation of the solar farm over the stated time period, having regard to the circumstances then prevailing, and in the interest of orderly development.

6. (a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.

   (b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the road.

   (c) Cables within the site shall be located underground.

   (d) The inverter/transformer stations shall be dark green in colour. The external walls of the control building shall be finished in a neutral colour such as light grey or off-white and the roof shall be black/grey/off-white.

   Reason: In the interests of clarity and of visual and residential amenity.

7. Prior to the commencement of development, details of the structure of the security fence showing provision for the movement of mammals shall be submitted for prior approval to the planning authority. This shall be facilitated through the provision of mammal access gates every 50 metres along the perimeter fence and in accordance with standard guidelines for provision of mammal access (NRA 2008).

   Reason: To allow wildlife to continue to have access across the site and in the interest of biodiversity protection.

8. The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:

   (a) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess and monitor all preparatory works and all site development works.

   (b) investigate areas of archaeological potential by means of geophysical survey and, depending on the findings, carry out test excavations if deemed necessary following consultation with the National Monuments Services

Section of the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media.

(c) notify the planning authority in writing at least four weeks prior to the commencement of any site operation relating to the proposed development, and

(d) submit a report to the planning authority, containing the results of the archaeological investigations and assessment. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the area and to secure the preservation in-situ or by record and protection of any archaeological remains that may exist within the site.

9. (a) All existing hedgerows (except at access track openings and proposed watercourse crossings) shall be retained notwithstanding any exemptions available and new planting undertaken in accordance with the plans submitted to the planning authority with the application.

   (b) All landscaping shall be planted to the written satisfaction of the planning authority prior to commencement of development. Any trees or hedgerow that are removed, die or become seriously damaged or diseased during the operative period of the solar farm as set out by this permission, shall be replaced within the next planting season by trees or hedging of similar size and species, unless otherwise agreed in writing with the planning authority
   Reason: In the interests of biodiversity, the visual amenities of the area, and the residential amenities of property in the vicinity.

10. Prior to the commencement of any works on site the applicant shall:

    (a) Complete all works at the proposed relocated access point to achieve the required sightlines, ensuring that the public road is maintained clean and free of any dirt or debris at all times.

    (b) Submit a Construction Stage Traffic Management Plan to the planning authority for prior written agreement.

    Reason: In the interest of traffic safety.

11. The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:

(a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;

(b) location of areas for construction site offices and staff facilities;

(c) details of site security fencing and hoardings;

(d) details of on-site car parking facilities for site workers during the course of construction;

(e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;

(f) measures to obviate queuing of construction traffic on the adjoining road network;

(g) measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;

(h) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

(i) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater;

(j) off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;

(k) details of on-site re-fuelling arrangements, including use of drip trays; (l) details of how it is proposed to manage excavated soil;

(m) means to ensure that surface water run-off is controlled such that no deleterious levels of silt or other pollutants enter local surface water drains or watercourses.

(n) Hours of construction.

A record of daily checks that the works are being undertaken in accordance with the Construction and Environmental Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of environmental protection, amenities, public health and safety.

12. Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services.

    Reason: In the interest of public health.

13. All road surfaces, culverts, watercourses, verges, and public lands shall be protected during construction and, in the case of any damage occurring, shall be reinstated to the satisfaction of the planning authority at the developer's expense. Prior to commencement of development, a road condition survey shall be carried out to provide a basis for reinstatement works. Details in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

    Reason: In order to ensure a satisfactory standard of development.

14. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site on cessation of the project coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

    Reason: To ensure satisfactory reinstatement of the site.

15. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to

commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Máire Daly
Planning Inspector

27th April 2022