



An  
Bord  
Pleanála

## Inspector's Report

### ABP-316043-23

#### Development

10 year planning permission for a solar array. To consist of c. 265,000 m<sup>2</sup> of solar panels, 8 control cabins, 2 ring main units, underground cabling, creation of a new entrance on L70382 and all associated ancillary site works. The solar array will connect to the national grid and will have an operational lifespan of 35 years. A Natura Impact Statement (NIS) was submitted with the application.

#### Location

Ballyglass, Coolderry, Dromintobin North, Reanabrone and Oakfield (townlands), Ardnacrusha, Co. Clare

#### Planning Authority

Clare County Council

#### Planning Authority Reg. Ref.

22591

#### Applicant(s)

Reeve Wave Ltd

#### Type of Application

Permission

#### Planning Authority Decision

Grant

<b>Type of Appeal</b>	First Party and Third Party
<b>Appellant(s)</b>	Greg Larkin and Others (Louise Kiernan; Liam Mannix; Rachel Mannix)
<b>Observer(s)</b>	None
<b>Date of Site Inspection</b>	25 <sup>th</sup> July 2023
<b>Inspector</b>	Una O'Neill

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## 1.0 Site Location and Description

- 1.1. The site, which has a stated area of 74.5ha, is located c. 1km east and northeast of Ardnacrusha village in Co. Clare and c. 6km northeast of Limerick City centre. The site comprises two distinct parcels of land, c. 390m apart, connected via an underground cable along the L70382. The site comprises a number of agricultural fields, with mature hedging, within the townlands of Ballyglass, Coolderry, Dromtobin North, Reanabrone and Oakfield. The southern parcel of the site has a c. 227m wide frontage onto the R463 to the south and the remainder of the boundaries are with agricultural fields. The northern portion is bounded by the L70382 for the majority of its eastern boundary (c. 700m), has a 185m frontage to the L3046 to the northwest, and has an access off the R741 to the northeast. The southern parcel is generally flat in nature and the northern parcel is more undulating, falling generally from north to south.
- 1.2. The area is rural in nature, comprising a number of dispersed rural dwellings. Ardnacrusha Power Station is located 1.6km to the southwest of the site and the Ardnacrusha Head Race Canal is located c. 160m south of the southern most boundary of the site, on the opposite side of the R463, behind a row of existing detached dwellings at that location. The river Blackwater runs north-south c. 580m to the west of the site at its closest point (to the west of the L3046). The Oakfield stream runs north-south to the east of the southern parcel of land, along a portion of the northeastern boundary, and alongside and through the northern parcel of land.

## 2.0 Proposed Development

- 2.1. The proposed development is for a solar array which will consist of:
- c. 265,000 m<sup>2</sup> of solar panels,
  - 8 single storey precast control cabins,
  - 2 ring main units,
  - Underground cabling within the solar array and within the L70382 public road to connect solar array field parcels,
  - Creation of a new entrance on L70382 and all associated ancillary site works,

- The solar array will connect to the national grid and will have an operational lifespan of 35 years.
  - A Natura Impact Statement (NIS) was submitted with the application.
- 2.2. A permission for 10 years is sought with the operational lifespan of the solar farm being 35 years.
- 2.3. In terms of access, upgrades are proposed to four existing agricultural field entrances on the R463, L3046 and the L70382, as well as a new entrance onto the L70382. It is proposed to adapt for use an existing 1,420m internal agricultural track and create a new internal track of 2,230m. It is proposed to remove 319.5m hedging and replace with 359m hedging plus upgrading of 12,527m of existing hedging to fill gaps.
- 2.4. It is proposed to connect to the national grid via a proposed substation in the northern part of the site and underground cabling connecting into an existing 110kV substation at Ardnacrusha. The 110kV substation and associated cabling does not form part of this application and it is stated it will form a separate application to ABP as a strategic infrastructure development. It is stated that the applicant entered pre-application consultations with ABP on 7<sup>th</sup> June 2022, planning ref ABP-313767-22, in relation to the substation and cabling.
- 2.5. The application is accompanied by a number of documents, some of which were amended/updated following a FI request. The documents submitted with the application include:
- Planning and Environmental Report
  - Ecological Impact Assessment (EclA) report – Revised report dated 30<sup>th</sup> November 2022
  - Site Access and Drainage Report – Revised report dated November 2022
  - Aquatic Ecological Assessment - Revised report dated November 2022
  - Glint and Glare Assessment - Revised report dated December 2022
  - Landscape and Visual Impact Assessment
  - Photomontages

- Archaeological Assessment
- Construction and Environmental Management Plan - Revised report dated 29<sup>th</sup> November 2022
- Natura Impact Statement - Revised report dated 30<sup>th</sup> November 2022
- Noise Impact Analysis Report

### 3.0 **Planning Authority Decision**

#### 3.1. **Decision**

Permission GRANTED on 17<sup>th</sup> February 2023 subject to 13 conditions, including the following:

C2(a): Permission shall be for 35 years.

C2(b): Within 5 years of commencement of operations of the solar farm, the operator will submit a Decommissioning and Recycling Plan.

C3: The applicant shall submit the following:

(a) Revised drawings and particulars which includes a 50% reduction in the proposed solar pv arrays in field no. 13, location to the north of the dwelling identified as H128. Proposed pv panels in the impacted field shall be located in the northern half of the field. This shall include the relocation of the proposed fencing and any associated equipment to the northern half of the field.

(b) The new boundary shall be landscaped in line with mitigation measures outlined in the Landscaping and Visual Impact Assessment received by the Planning Authority of the 4<sup>th</sup> July 2022, and a revised landscaping plan shall be submitted to the Planning Authority for written approval.

C4(a): Updated CEMP to include results of AIA, all mitigation measures in NIS and EIA and include Section 5.2 of the Aquatic EclA which requires Turbidity monitoring of the Oakfield Stream and not just visual assessments.

C7(a)(b) and (c): Landscaping and field boundaries.

C9: Ecological mitigation measures in relation to aquatic environment, otters and badgers.

C10: The solar panels shall be fixed in place by way of driven pile or screw foundations only unless authorised by way of prior grant of permission.

C11 and C12: Archaeology.

C13: Development Contribution.

## **3.2. Planning Authority Reports**

### **3.2.1. Planning Reports**

The application was submitted to the Planning Authority (PA) on 4<sup>th</sup> July 2022. Further information was requested by the PA on 25<sup>th</sup> August 2022. FI was submitted by the applicant on 7<sup>th</sup> December 2022. Permission was subsequently granted on 17<sup>th</sup> February 2023.

The FI requested is summarised as follows:

- All site preparation works, site access route construction, spoil management and description of timing schedules and proposed management and containment of waste spoil arising during these works. All environmental/ecological reports to be updated.
- Consideration of construction impacts and potential emissions in the NIS, cumulative impact of development in the area specifically the permitted waste facility west of field 10; ecological reports to be updated to include data and analysis of site drainage and connectivity to the Oakfield Stream and Blackwater River; updated Site Access and Drainage Report; future substation to be included in NIS in terms of cumulative and in-combination effects arising in terms of the construction of the development.
- Glint and Glare report to be updated to include potential impacts on Shannon Airport.
- TTA requested and clarity requested over what site entrances are being used for construction and during operation.



- Impact on residential amenities and proximity to a number of dwellings, specifically houses referenced H123, H124 and H128; noise impact assessment requested in relation to proposed transformer units; proposals for protection of any established equestrian routes during the construction/operational period; query in relation to plans by the applicant for other proposals in the area.
- Dept. has recommended archaeological geophysical survey and targeted test excavation.

The Planning Officer's reports generally reflects the decision of the Planning Authority. The following is of note:

- In relation to dwelling H128, outstanding concerns in relation to overbearance and impacts on residential amenity, therefore condition recommended to reduce solar arrays north of dwelling H128 in field 13, with additional landscaping at that boundary.

### 3.2.2. Other Technical Reports

#### Environmental Assessment Officer Reports:

- Report dated 18<sup>th</sup> August 2022: No emission concerns during operation; main impact likely during construction and site preparation works; lack of information in relation to spoil management during construction of access track; soil is generally poor draining with high clay content, which requires more site specific management to prevent sediment discharge over long flow distances therefore more information required in relation to spoil tonnage and management on site and the NIS and CEMP to be revised accordingly; northern portion of site and field drains drain mainly to the Oakfield stream and southern portion of site drains mainly to the toe drain (slow flowing) under the R463 and on to the Blackwater (Clare) river 0.7km to the west; site access and drainage report, NIS and Ecology Report require revision to include reference to internal site drainage and address potential emissions arising; existing permitted waste facility due west of Field 10 in the north has not been referenced in the documentation; FI requested.
- Report dated 16<sup>th</sup> February 2023: Separate application does not represent project splitting, as entire project has been assessed as one in terms of the

Habitats Directive; no risk of adverse impacts on any European site, having regard to measures in CEMP and measures related to the substation construction and site works. Conditions recommended.

Road Design Office Reports:

- Report dated 11<sup>th</sup> August 2022: TTA required; request for applicant to submit a detailed haul route from the site entrances to the motorway; road survey of haul route for pre during and post construction and survey of all bridges and culverts with in the site and on the haul route; full construction management plan requested; details of any upgrade of L70382 and drainage works to be agreed; clarity in relation to what entrances being used for construction and what entrances being used during operation; drainage channels on site to be identified and no surface water allowed onto public roads from the site; a construction waste management plan to be agreed.
- Report dated 20<sup>th</sup> December 2022: The submitted internally prepared report by the applicant that does not adhere to Traffic and Transport Guidelines by TII.
- Report dated 16<sup>th</sup> February 2023: Conditions recommended in relation to road reinstatement and communication with residents in relation to any disruption during construction.

Fire Authority Report dated 14<sup>th</sup> July 2022: No objection.

Burke Environmental Services – Employed by the Council to review and assess the details of the NIS, EclA and Aquatic EclA:

- Main concerns regarding emissions to the environment arise during the construction and site preparation works. FI requested in relation to spoil management during access track preparation.
- NIS and CEMP to take account of scope of spoil management.
- NIS to address construction works and potential emissions likely to impact European site of Lower River Shannon SAC.
- Soils are generally poor draining with a high clay content, therefore more site-specific management required to prevent sediment discharge over long flow distances.

### 3.3. Prescribed Bodies

**Irish Water** – No objection.

**Shannon Airport Authority** – Report dated 4<sup>th</sup> August 2022, recommends a revised Glint and Glare report that includes an assessment of potential impacts on Shannon Airport airfield receptors (runway 24 and 06 approaches as well as the Air Traffic Control Tower).

**Irish Airport Authority** – No observations.

**Dept. of Housing, Local Govt, and Heritage, Development Applications Unit** –  
Archaeology

- Further information in relation to archaeology requested, specifically, an Updated Archaeological Impact Assessment to include a targeted archaeological geophysical survey and targeted archaeological test excavation.
- Report dated 4<sup>th</sup> January 2023 – Conditions recommended in relation to Archaeological Test Excavation, Archaeological Monitoring, and update of Construction Environmental Management Plan to include the locations of any and all archaeological or cultural heritage constraints.

Nature Conservation

- Report dated 3<sup>rd</sup> January 2023 - Conditions recommended in relation to a Decommissioning and Recycling Plan within 5 years of operation of the solar farm (preferably to be deferred until site in operation given advances are occurring in relation to recycling options); Survey for invasive species prior to any drainage or other works being carried out in watercourses; ecological clerk of works are per Aquatic Ecology Report; Repeat survey for otters prior to construction commencing.

### 3.4. Third Party Observations

Nineteen observations were received. The issues raised are largely as set out in the grounds of appeal (see Section 6 hereunder), and include the following issues:

- Scale in a rural area inappropriate

- Contrary to development plan which states development should be on brownfield sites.
- Lack of public consultations.
- Negative impact on visual amenity.
- Increased risk of local crime.
- Negative impact on wildlife.
- Fire risks from solar panel materials.
- Pollution risk from run-off from damaged panels.
- Negative impact on residential and property values.
- Wind load.
- Negative impact on equestrian activities.

## 4.0 Planning History

None relevant.

Adjoining field to northwest of site/adjoining Oakfield Stream:

- PA Reg Ref 21796 – Permission GRANTED to fill 1.4ha of existing poor quality agricultural land with stone and gravel in order to raise the level of the grounds, and widen existing agricultural entrance.

Planning History in the Area – West of Ardnacrusha Village:

- PA reg ref 2357 – Permission GRANTED for a 10 year permission for a solar farm on a site of c. 70 ha consisting of 309,008sqm of solar pv panels.

[Appeal withdrawn from ABP on 10<sup>th</sup> July 2023].

## 5.0 Policy Context

### 5.1. National Policy

- Climate Action Plan 2023 (DECC) – Sets out a framework to guide the country towards decarbonisation, with sectoral strategies for agriculture, among others. The

plan requires a large-scale deployment of renewables and includes an acceleration of the delivery of onshore wind to 9GW, solar energy to 8GW and offshore wind to at least 5GW.

- National Planning Framework
  - Objective 55 – 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.
- Regional Spatial and Economic Strategy for the Southern Region
  - The site is within the area of the Limerick-Shannon Metropolitan Area.
  - REPO 100: Indigenous Renewable Energy Production and Grid Injection - It is an objective to support the integration of indigenous renewable energy production and grid injection.
  - REO 219: New Energy Infrastructure - It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.

## 5.2. Clare County Development Plan 2023-2029

The Clare County Development Plan 2023-2029 came into effect on 20th April 2023.

- CDP2.18 - It is an objective of Clare County Council:
  - a) To facilitate and support the development of solar farms in appropriate locations throughout the county including on agricultural lands and brownfield sites subject to normal planning considerations; and
  - b) To encourage the use of solar thermal or solar PV installations as part of the design and planning process for new developments and refurbishments.
- CDP8.12: It is an objective of Clare County Council: To support the implementation of the National Renewable Energy Action Plan (NREAP), the Clare

Wind Energy Strategy and the Clare Renewable Energy Strategy to facilitate the development of renewable energy developments in rural areas to meet national objectives towards achieving a low carbon economy by 2050 subject to the requirement of the RES SEA Environmental Report and the mitigation measures arising from the CDP Appropriate Assessment as contained in Volume 10(a).

- Appendix 1 Development Management Guidelines:
- A1.2.3 Renewable Energy: ...For renewable energy developments outside of these exemptions planning permission is required and the Planning Authority will assess such development proposals on a case by case basis, having regard to current Government policy and Ministerial Guidelines, the Clare Renewable Energy Strategy (Appendix 5), the Clare Wind Energy Strategy (Appendix 6), the relevant Objectives contained in this Plan, site specific circumstances, the content of the submissions and observations received and other planning and environmental considerations. In relation to utility-scale solar energy applications, any pre-application discussion and/or planning application proposal for solar farm development in the vicinity of the strategic national road network shall include a Glint and Glare Assessment.
- Volume 5 Clare Renewable Energy Strategy – Interim Version – April 2023.
  - Chapter 7 Solar Energy
    - The following solar energy guidance documents have been published by SEAI. More information in relation to solar energy can be found in Chapter 10.
    - Planning and Development Guidance Recommendations for Utility Scale Solar PV Schemes in Ireland • SEAI Best Practice Guide Photovoltaics (PV) (SEAI) • SEAI Domestic Solar Photovoltaic Code of Practice for Installers (2021)
    - Map 7.2 Solar Opportunity Areas
      - Map 7.2 shows “Opportunity Areas” identified as accessible for large-scale (>50MW) solar development following removal of European protected sites, heritage and monuments, settlements and existing infrastructure. A further mapping exercise was carried out to evaluate the number of constraints within the opportunity areas that might have an impact on siting of solar farms....The

Cumulative Constraints are displayed on a scale ranging from 0 to 60... However, the presence of a low or high constraint level in and of itself does not support nor preclude solar development; it is a tool which flags areas of having a higher or lower concentration / distance from various sensitive receptors. A proposed solar development would be subject to detailed siting and environmental considerations and the outcomes of the planning process.

- Objective RES 7.1: It is an objective of Clare County Council:
  - A. To increase the penetration of utility scale solar energy development in appropriate locations.
  - B. To favourably consider the redevelopment of brown field sites for large solar PV projects.
  - C. To favourably consider the development of solar farms on agricultural lands which allow for farm diversification and multipurpose land use.

### 5.3. Natural Heritage Designations

The following designations in the area are noted:

- Lower River Shannon SAC – 5km downstream (hydrologically) from the site/c.3km as the crow flies.
- River Shannon and River Fergus Estuaries SPA (004077) – 6.2km from the site.
- Inner Shannon Estuary South Shore pNHA – 5.8km from the site.
- Fergus Estuary and Inner Shannon North Shore pNHA – 4.3km from the site.
- Inner Shannon Estuary South Shore pNHA – 5.8km from the site.
- Cloonlara House pNHA – c. 900m from the site.
- Castleconnell pNHA – c. 3.8km from the site.

### 5.4. EIA Screening

- 5.4.1. Schedule 5 of the Planning and Development Regulations, 2001 (as amended), sets out Annex I and Annex II projects which mandatorily require an EIAR. Part 1,

Schedule 5 outlines classes of development that require EIAR and Part 2, Schedule 5 outlines classes of developments that require EIAR but are subject to thresholds.

5.4.2. Solar energy development is not listed as a class of development for the purposes of EIA under Part 2 of Schedule 5, within the Planning and Development Regulations, 2001 (as amended). In this regard, a requirement for preliminary examination or EIA does not arise.

5.4.3. Under the Environmental Impact Assessment (*Agriculture*) Regulations, 2011, by the Department of Agriculture, Food and the Marine, rural restructuring of farmland requires screening. In this regard I note the more recent amending regulation S.I. 383 of 2023 Planning and Development (Amendment) (No. 2) Regulations 2023, which amends Class 1 of Part 2 of Schedule 5, by inserting the following:

*(a) Projects for the restructuring of rural land holdings, undertaken as part of a wider proposed development, and not as an agricultural activity that must comply with the European Communities (Environmental Impact Assessment)(Agriculture) Regulations 2011, where the length of field boundary to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or where the area of lands to be restructured by removal of field boundaries is above 50 hectares.*

I note that these thresholds reflect those set out in Schedule 1, Part B of the 2011 EIA (Agriculture) Regulations. Furthermore, Part A of Schedule 1 of the 2011 regulations sets out the following thresholds for screening for EIA:

<b>Restructuring of rural land holdings</b>	<b>Screening Required</b>
Length of field boundary to be removed	Above 500m
Re-contouring (within farm-holding)	Above 2 hectares
Area of lands to be restructured by removal of field boundaries	Above 5 hectares

5.4.4. The proposed development involves the removal of 319.5 metres of hedgerow, to facilitate site entrance upgrades, access tracks and cabling work. This is significantly below the threshold of 4km for EIA reinserted by the 2023 amending regulations and is also considerably below the screening threshold set out in the 2011 (Agricultural)



regulations. Such removal is associated with access requirements and does not result in the amalgamation or enlargement of existing fields. I have concluded within Section 7 of this report hereunder that significant effects on biodiversity are not likely as a result of such works. I further note the ground levels in this area do not vary significantly and no significant excavation or recontouring of land will be required.

5.4.5. Having regard to the above, I am satisfied that the proposed solar farm is not of a class that requires EIA or screening for EIA, while the associated grid connection is also not of a class of development listed under Parts 1 or 2 of Schedule 5. The development would, however, constitute sub-threshold development for rural restructuring (Class 1(a), Part 2 Schedule 5).

5.4.6. I refer to Form no. 1 Preliminary Examination Appended to this report and conclude that there is no real likelihood of significant effects on the environment and that EIA is not required.

## **6.0 The Appeal**

### **6.1. Grounds of Appeal**

6.1.1. A first and a third party appeal has been made in relation to this application.

#### Third Party Appeal

6.1.2. The third appeal, dated 13<sup>th</sup> March 2023, was received from Michael J. Duffy on behalf of Greg Larkin and Others. The submission is summarised as follows:

- Procedural Matters – on-line drawings are not date stamped, therefore it is not a proper understanding of what is proposed and for application of enforcement conditions in time; many of the documents are not searchable on the web, restricting the public's ability to fully participate; minutes of the pre-planning meeting are not placed on the public file at validation stage as required in statute and s. 28 Ministerial Guidelines, which impacts on public participation.
- There is no justification or statutory basis for a 10 year planning permission.
- Appropriate assessment screening and determination inadequate and flawed. Determination not issued and that issued is inconclusive. No proper AA carried out before a decision was issued.

- AA of the infrastructure connectivity required in combination with this proposal has not been carried out. This compromises any future application for a grid connection.
- Proposal is an urban industrial scale project with high security fencing in a totally inappropriate setting.
- Project is not plan led.
- Road access and impact on local residents not properly assessed.
- No flood risk assessment was carried out. 28ha of hard surfaces could dramatically alter the existing surface water run off rate.
- Design is stated to be indicative, which eliminates public participation in post grant decisions between the developer and the PA.
- Methodology for installation is of concern due to impacts on amenity of residents and safety concerns for their animals, particularly mares in foal.
- Methodology for founding the extensive perimeter fences not stated.
- Archaeology and lack of certainty in design of foundations.
- Visual amenity of the area will be affected and would be out of context of the area.
- LVIA – screening will not mitigate impacts.
- 320m of hedgerows to be removed which has been conditioned out in the decision. How will this be enforced?
- Proposal is an incongruous feature in the landscape.
- Impact on horses using the local road for exercising and conflict with vehicles; impact of security fencing; noise from inverters and transformers on horses; impact of drainage; surface change to L70382 to a harder material on the ability to ride at a faster pace; emissions to Oakfield Stream; impacts on horses due to stray voltage.
- Impacts on residential amenity during the construction and life cycle of the project.
- PA does not have the competence to assess the Glint and Glare Report.

- Conditions inappropriate and unenforceable – conditions, 1, 2(a) and (b), 3, 4, 5(b) and (d), 6, 9, 10, 11 and 12 referenced.
- Concerns in relation to overdevelopment, noise and access.

### First Party Appeal

6.1.3. The first party appeal, dated 15<sup>th</sup> March 2023, is summarised as follows:

- Appeal against condition 3 of the permission.
- The condition is unnecessary and unreasonable. The applicant is committed to safeguarding the amenity of local residents. The layout of the proposed array will not impact on the amenity of residential receptor H128, as it relates to the subject condition. A Glint and Glare Report and Landscape and Visual Impact Assessment have been submitted and confirm no impact on residential properties. A Noise Impact Assessment was prepared following FI and concluded no adverse impact on local amenities.
- Proximity of a dwelling to a solar panel does not have an impact on glint and glare, what is of relevance is terrain and elevation between the array and the receptor.
- In relation to H128, the Glint and Glare report confirms that the panels to the immediate north of this residential property does not result in any theoretical glare.
- Having regard to the project design, location/aspect of the dwelling and travel path of the sun, the potential for overshadowing effects of landscape mitigation is not technically possible.
- The planners report proposes condition 3 in response to concerns in relation to potential for overbearance and impacts on residential amenity of H128. The rationale is vague in nature and no validity for its imposition has been set out. The condition is not necessary or relevant and is therefore contrary to the Development Management Guidelines for Planning Authorities 2007.
- Landscape mitigation will ensure proposal does not give rise to overbearance. The subject dwelling is 35.84m from the nearest solar panel. There is an agricultural building/stable within the garden of the dwelling at the northern boundary with the site which screens the front garden from the solar array. There is one small window

on the northern gable facing into the site, which may relate to an attic/secondary space. The dwelling is orientated/designed to capture western light. The intervening boundary comprises mature trees and hedging. Mitigation planting will bolster existing low point of hedging to the north of the agricultural building/stables.

- The condition will unnecessarily impact the generating potential of the project through the omission of energy generating solar panels. The condition will unfairly inhibit the successful commercial development and operation of the solar array and is contrary to established precedent.
- Precedent from other ABP decisions in relation to solar farms permitted proximate to dwellings.

## 6.2. Applicant Response

A submission was made in response to the grounds of appeal by HW Planning, on behalf of the applicant, on 12<sup>th</sup> April 2023, which is summarised as follows:

- Documents were referred internally in the council and understanding of the project was not inhibited in any way. Any planning conditions apply from the date of the decision.
- There is no statutory requirement which necessitates a search function on the council website. The documents are available online.
- The area planner's report on the file includes a summary of the pre-planning meeting held. The pre-application advice from Clare County Council was provided without bias to the formal consideration of the subsequent application. There was no reliance by the PA on the pre-application meeting in their decision making. Public participation has not been impacted.
- A 10 year permission is sought, as per the description of development, reflecting circumstances which can sit outside the control of the applicant, such as the timeline for a separate SID application for a substation and underground cabling to connect to an existing substation at Ardnacrusa and timeline required for approval of a connection application from EBS Networks. A 10 year permission has been granted previously by ABP for other renewable energy projects.

- In relation to the AA Screening Determination, the Council attached its decision to the planner's report where FI was requested. An NIS was subsequently prepared. The subsequent decision from Clare County Council includes a formal determination on the NIS.
- The proposal is in compliance with local and national policy. There is no basis to the claim that the proposal is not plan-led. The proposal represents a form of agricultural diversification, which is appropriate in rural areas. It represents a temporary use in the landscape which is fully reversible in nature and traditional agriculture 'grazing' practices can continue to take place on the subject lands during the operational life of the project.
- The lands are not situated on or proximate to any areas of flood risk as identified by the OPW and having regard to historic records. Hard surfaces comprise a minute part of the site. The proposal will not give rise to increase surface water run off (volumes or rates) in an agricultural setting. This is supported by both academic and industry testing of pre and post-panelled ground conditions. A drainage strategy is included in the application.
- A landscape and visual assessment has been submitted with the application, including baseline and policy review, digital terrain and digital surface analysis and preparation of photomontages. The solar array is substantially screened from view locally and proposed mitigation screening will be very effective.
- An Archaeological assessment was submitted. The applicant confirms that pre-development testing and appropriate monitoring of construction works will be undertaken, as per conditions 11 and 12 of the PA decision.
- The proposal will not adversely impact local equine practices, as addressed on page 9 of the first party response to the appeal.
- The Glint and Glare report comprises a methodology and the model utilised was developed by Macro Works in conjunction with the National University of Maynooth.
- Perceived indicative design – the application includes a comprehensive suites of plans and technical particulars and the submitted CEMP describes the installation method for ground mounted support frames. In relation to ballasts

these would typically be used where archaeological investigations confirm the presence of a feature or area of sensitivity to be protected. There is no merit to any claims that the use of such an approach, only where necessary, in lieu of screw or driven-piles would result in additional impacts.

- Disagree with third party that planning conditions are inappropriate and/or unenforceable. In relation to condition 2, it is appropriate to specify an operational life for a renewable energy project. In relation to condition 4, it is standard practice for a CEMP to be updated and submitted to the local authority for agreement prior to the commencement of development.

### **6.3. Planning Authority Response**

The PA in response to the grounds of appeal states it has no comments to make in relation to the procedural items discussed and refers to the considerations set out in the Planner's Report in relation to the other items addressed.

### **6.4. Observations**

None.

### **6.5. Further Responses**

None.

## **7.0 Assessment**

### **7.1. Introduction**

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

- Principle of Development
- Landscape / Visual Impact

- Impact on Residential Amenity
  - Visual Overbearance and First Party Appeal against Condition 3
  - Impact on Residential Amenity of Other Dwellings Proximate to the Site
  - Noise
  - Glint & Glare
- Impact on Equine Animals
- Traffic and Access
- Surface Water Drainage
- Ecology
- Archaeology
- Other Matters

7.1.1. The Clare County Development Plan 2023-2029 came into effect on 20th April 2023. I note the Planning Authority's assessment of this application was undertaken under the previous development plan, which was also in force at the time of the appeal submissions. I assess hereunder the application against the current development plan, namely Clare County Development Plan 2023-2029.

## 7.2. Principle of Development

7.2.1. The proposal consists of a solar photovoltaic (PV) development with associated infrastructure, underground cabling and a new entrance onto the L70382, in addition to upgrading of four existing agricultural field entrances. The site is 74.5ha in area and the development comprises 265,000m<sup>2</sup> of solar panels and associated infrastructure.

7.2.2. 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 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. Clare County Development Plan 2023-2029 supports renewable energy and contains a Renewable Energy Strategy. As per Objective 2.18, it is an objective of Clare County Council to facilitate and support the development of solar farms in appropriate locations throughout the county including on agricultural lands and brownfield sites subject to normal planning considerations; and under RES 7.1, It is an objective of Clare County Council (a) To increase the penetration of utility scale solar energy development in appropriate locations; (b) To favourably consider the redevelopment of brown field sites for large solar PV projects; (c) To favourably consider the development of solar farms on agricultural lands which allow for farm diversification and multipurpose land use. Map 7.2 Solar Opportunity Areas within the Renewable Energy Strategy (volume 5 of the adopted development plan) does not appear to identify constraints in the area of the site.
- 7.2.4. The site is located on agricultural lands that are outside any designated settlement and the proposal will allow for farm diversification and multipurpose land use, as supported by objective RES7.1 of the operative development plan. While the third party submission raises concerns over the lack of government guidance in relation to solar farms, I have reviewed the guidance that exists within the operative development plan, alongside government policy, and I am satisfied that the proposed development is suitably located and is acceptable in principle, subject to consideration of key planning issues as assessed below.

### **7.3. Landscape/Visual Impact**

- 7.3.1. Concerns area raised in the grounds of appeal in relation to the impact of scale of the proposed development on this rural area and on the visual amenity of the area. It is contended that the proposal is incongruous and the proposed landscape mitigation ineffective.
- 7.3.2. The PA report considers the landscape in the area to be robust and the mature field boundaries and undulating land offer good screening, however concern is raised in related to the proximity of the solar farm to one dwelling in particular, resulting in a



condition in relation to mitigation of overbearance via redesign and bolstered landscaping (see section 7.4 of this report hereunder in relation to assessment of impact on residential amenity), with the PA considering, overall, that the landscaping plan will mitigate impacts, with construction phase impacts temporary.

- 7.3.3. The subject site is located within what is described as a 'working landscape' in the operative development plan, where uses envisaged include agriculture, energy, forestry, extraction, transportation, industry and commerce, tourism, recreation and leisure, education, healthcare and social infrastructure. The site is within the River Shannon Farmland landscape character area. The site is not within any of the designated heritage landscapes. The site is not identified as having designated views or prospects.
- 7.3.4. The application is accompanied by a Landscape and Visual Impact Appraisal and associated photomontages. A 5km radius study area is used, with a focus on views within 2km. Twelve viewshed reference points (VRPs) have been selected for the photomontages. I have inspected the site and surrounding area and have reviewed the viewpoint photomontages, submissions, and all documentation submitted. I consider the study area distances and locations for the photomontage images chosen to be representative and allow for a proper assessment of the landscape and visual impacts of the proposed development from the most sensitive locations in the surrounding area.
- 7.3.5. It is proposed to retain the majority of existing hedgerow boundaries around the site, with the removal of some internal field boundaries and limited sections of hedgerows at entrances. The boundaries to be removed and planting proposals to enhance and strengthen existing boundaries are indicated on drawings no. LD.BLLYGLSS 3.1 and 3.2, Landscape Mitigation Plan. Hedgerows are proposed to be managed up to 3-4m in height.
- 7.3.6. In terms of the scale of the structures proposed, the ground-mounted system holding the panels will be at a minimum height of 0.25m above the ground and rise to a maximum height of 3m, with the pv panels tilted at an angle of 15-25 degrees. The eight control panels and associated transformer units are 3.5m in height and 22.2sqm in area.

7.3.7. I note concerns raised by the PA in relation to the visibility of the site from VP7, along the L70382, and from VP11, along the R463 (as recorded in the submitted LVIA Photomontages). I have viewed both locations and the landscaping plans proposed by the applicant. I am satisfied that the view from the L70382 would be an intermittent view as one travels along this narrow single carriageway road given existing hedgerows and, with the landscaping proposed, I consider the visual impact of the proposal to be acceptable. In terms of the view from the R463, the lands are relatively flat at this location and with landscaping in place, I consider the visual impact to be acceptable. I note the applicant states that the proposed hedgerow planting within the site parallel to the R463 will be planted prior to the commencement of development in order to have two growing seasons prior to the installation of the panels in this section of the site. I note the PA proposes a condition to address overbearance on an existing dwelling bounding the site along the L70382. I examine this issue in detail in section 7.4 hereunder, however, I consider the impact of the proposal on the dwellings in this area to be acceptable and would not detract from existing residential amenity.

7.3.8. Whilst I accept that the proposed development will change the local landscape from a visual perspective, in my view the established landscape is capable of absorbing this change, given the flat topography to the south, the gentle rolling nature to the north, the extensive hedgerows and their augmentation with further planting, the separation distances from roads and residential dwellings, and the generally low rise nature of the panels to approx. 3m in height. I consider that the setting, which is a working rural landscape would, following mitigation, have a low visual impact and any residual views remaining would be intermittent and of a low impact. Having regard to the mitigation measures proposed, I am satisfied that the proposed development would not adversely impact on the landscape and visual amenities of the area including those from adjoining properties.

#### **7.4. Impact on Residential Amenity**

##### Visual Overbearance and First Party Appeal against Condition 3

7.4.1. The PA Report raised concerns in relation to the residential amenities of the dwelling to the southeastern boundary of the northern parcel of the site. Following a FI

request, the PA attached a condition to the permission (condition 3) that revised drawings and particulars were required which includes a 50% reduction in the proposed solar PV arrays in field no. 13, located to the north of the dwelling identified as H128. The condition states the proposed PV panels in the impacted field shall be located in the northern half of the field and that this shall include the relocation of the proposed fencing and any associated equipment to the northern half of the field.

7.4.2. The first party grounds of appeal relating to condition 3 contends that the layout of the proposed array will not impact on the amenity of residential receptor H128, as demonstrated in the Glint and Glare Report and Landscape and Visual Impact Assessment, with the layout and landscape mitigation ensuring the proposal is not overbearing. Site photos from the site looking toward the dwelling in question are submitted with the first party grounds of appeal. A Section DD has been submitted showing the solar farm panels relative to the dwelling in a cross section, and while this is not to scale, it gives a visual impression of the proposal relative to the dwelling in question.

7.4.3. I have examined the location of the development relative to the dwelling labelled in the Glint and Glare report as H128. The dwelling is located on the western side of the L70382, just south of the boundary of the northern parcel of the site. I note the northern/side gable of the single storey dwelling is located c. 36m from the solar panels to the north, with the solar panels 14m off the boundary, with some panels closer toward the rear of the site the dwelling is located on, being 12m at their closest point. The applicant proposes a new hedgerow inside the site boundary to bolster the existing hedgerow at this location, which is weak in parts, and inside this new hedge is a proposed palladin fence. I note there is a shed to the front and side of the existing dwelling, within 8m of the existing hedgerow boundary. While this is the closest dwelling adjoining the solar farm boundary, I note the orientation of the dwelling relative to the solar farm (ie its gable is toward the shared boundary), the positioning of a shed along a portion of the boundary, the existing as well as the supplementary planting proposed, and the overall scale/height of the solar panels which are positioned to the north of the dwelling. I do not consider the solar farm will have a significant negative impact on the residential amenity of this dwelling in terms of overbearance and I therefore recommend that should the Board be minded to

grant permission, that a condition in relation to the moving off the boundary of the proposed solar panels would not be warranted.

#### Visual Impact on Other Dwellings Proximate to the Site

- 7.4.4. I have reviewed the proximity of the surrounding dwellings to the boundaries of the solar farm, including the dwellings to the northwest and northeast. I note that a buffer is provided to these dwellings with additional planting at these locations. I refer the Board to drawings no. LD.BLLYGLSS 3.1 and 3.2, Landscape Mitigation Plans.
- 7.4.5. I am overall satisfied that given the nature and scale of the structures proposed, proximity to boundaries and proposed landscaping plans, that the development will not impact on the visual or residential amenity of dwellings in proximity to the site.

#### Noise

- 7.4.6. Concerns are raised in the third party submission in relation to noise from invertors and transformers and their impact on horses owned by the appellant.
- 7.4.7. Further to a further information request, the applicant submitted a Noise Impact Assessment, which the PA indicated in their report was acceptable.
- 7.4.8. The submitted Noise Impact Analysis Report (dated 6<sup>th</sup> December 2022) indicates the main noise sources arising from solar farm equipment relate to the inverters/transformer stations, related cooling equipment and the 110kV substation, with the location of this equipment indicated on page 12 of the submitted report. Fourteen noise sensitive locations (dwellings) are identified for inclusion in a noise assessment (see illustration on page 13 of submitted report). The main noise currently generated in the area at present relates to traffic on the surrounding road network, including agricultural machinery and equipment. It is noted that none of the dwellings are within 200m of the identified noise sources relating to the solar farm. The report concludes there will be no perceptible increase in noise at the facades of dwellings in the area.
- 7.4.9. In terms of construction noise, the construction works relate to ground works for the access tracks, and path and PV panel installation, which are not anticipated to give rise to significant noise. I note the nature of the construction works and consider that such noise will be relatively short term and temporary in nature and will not have a significant long term impact on residential amenity.

- 7.4.10. With regard to the concern raised by a third party in relation to stray voltage impacts on horses, which use the L70382 for local trekking, the applicant has responded to the grounds of appeal that there is no scientific basis for this concern and only quality certified infrastructure will be installed on the site which will be routinely monitored. It is further stated that there will be no noise impacts from the inverters.
- 7.4.11. I have reviewed the information submitted, and noting that there is no evidence to suggest that significant noise or stray voltage from the facility will be an issue, I consider that significant impacts on horses in this regard will not arise.
- 7.4.12. Having regard to the low level of noise that will be generated, the separation distance to dwellings and the daytime operation of the solar farm when other noise sources such as traffic and farm machinery will contribute to the noise environment, I am satisfied that operational noise impacts will not be a significant issue in terms of residential amenity.

#### Glint and Glare

- 7.4.13. Concerns are raised in the third party submission in relation to the Glint and Glare Assessment.
- 7.4.14. The PA requested FI in relation to glint and glare following a submission from Shannon Airport Authority requesting that the Glint and Glare Assessment includes an assessment of potential impacts on Shannon Airport airfield receptors (runway 24 and 06 approaches as well as the Air Traffic Control Tower). A follow up report was submitted and no concerns were raised. Shannon Airport Authority did not comment any further on the application.
- 7.4.15. A Glint and Glare Assessment was submitted with the application and following a request for FI from the PA, a Solar Glare Hazard Analysis Tool (SGHAT) to address potential impacts on Shannon Airport was also submitted.
- 7.4.16. With regard to the Glint and Glare Assessment (dated June 2022), the focus of the assessment is on potential impacts of the solar panels on dwellings and transport route receptors. Section 4 of the report sets out the methodology adopted, which includes the use of computer modelling and establishes the typical parameters around which glare may arise.

- 7.4.17. With regard to dwellings, Figure 7 of the report sets out the sensitive receptors in the area, with 147 dwellings examined, and three dwellings with the greatest potential to incur glint and glare are examined in more detail in section 4.3.2, namely dwellings H123 and H124 (both to the west of the site), and H128 (to the east of the site). The potential impact was calculated in terms of minutes per day where glare could potentially arise, and the results indicated a medium to very low impact. I have reviewed the information and calculations submitted, which show a limited potential for a short portion of any day on the three dwellings in question, and I am satisfied that glint and glare is not likely to be a significant issue arising from the development of a solar farm at this location. An assessment of the road network in the area similarly shows the potential impact from the solar farm would not be significant.
- 7.4.18. With regard to potential impacts on airports, it is stated under the methodology and guidance section of the report submitted in response to further information (dated December 2022) that the Federal Aviation Authority prepared guidance in relation to solar development and aviation which has been adopted for use by the Irish Aviation Authority, which has been used in the submitted assessment. The results of the SGHAT shows no hazardous glint and glare effects upon the identified aviation receptors as a result of the proposed solar panels.
- 7.4.19. I am satisfied, having reviewed all the information submitted, that the issue of glint and glare has been adequately addressed by the applicant and no significant negative impacts are likely to arise.

## **7.5. Impact on Equine Animals**

- 7.5.1. The third party submission contends that the proposed development will negatively impact on their horses, including conflict with vehicles while using the L30782; impact of security fencing; noise from inverters and transformers on horses; impact of drainage and surface change to L70382 to a harder material impacting on the horses.
- 7.5.2. The PA following submission of a FI response in relation to impact of the development on established equestrian routes during construction and operation, was satisfied that construction phase impacts were short term.

- 7.5.3. In terms of horses using the L70382, I note the Clonlara Equestrian Centre has an entrance onto the L30782, which appears to be used as part of its pony trekking lessons. I noted approx. 4 horses with kids and adults being walked on the L70382 whilst on site inspection. From the equestrian centre's webpage the centre is situated on 130 acres and has an indoor international sized arena. I am unclear if others also use the L30782 for horse riding, but note that it is the case that horses utilise this single carriageway road.
- 7.5.4. In response to the grounds of appeal in relation to this issue, the applicant has responded to issues raised and the following points are noted:
- A Traffic Management Plan will be implemented for the construction phase to sensitively manage impacts to horse riders with 3-4HGVs envisaged to use the road per day. Deliveries will be programmed and managed to avoid any perceived local disruption.
  - All security fencing, which is agricultural deer fencing, is proposed inside existing hedgerow boundaries to be retained.
  - A linear drainage system will be used to ensure no run-off from fields to the road.
  - It is proposed to upgrade the unpaved areas of the L70382 up to site entrance 4 with clause 804 track which is stated not to be a hard surface. The works to the surface/laying of the cable will take seven days.
- 7.5.5. Having considered all the information submitted, I do not consider that a development of this nature would be incompatible with surrounding agricultural activity, including the keeping of horses on neighbouring properties, or that the works to the road would have a significant negative impact on horses trekking on the road during the operational phase. Having regard to the construction and traffic issues, it has been sufficiently demonstrated that potential issues arising during construction can be managed by way of a construction management plan and communication with local residents. Should the Board be minded to grant permission, a condition in relation to the submission of an updated Construction and Environmental Management Plan would be warranted.

## 7.6. Traffic and Access

- 7.6.1. Concern is raised by third parties that a Traffic and Transport Assessment was not submitted.
- 7.6.2. I note that a TTA was requested at FI stage, but it is stated that following discussions with the roads design and transportation office of the local authority, that the approach taken was to submit an updated Site Access and Drainage Report. The PA raised no issue with this approach.
- 7.6.3. Given the nature of the development and the level of traffic to be generated by the operation of the facility (2-4 van or tractor/trailer movements per month), I do not consider that a full TTA was warranted, which is in accordance with TII guidance (including sub-threshold considerations), and I am satisfied that the Board has sufficient information before it to undertake a robust assessment in relation to potential traffic and access issues.
- 7.6.4. There are four existing agricultural entrances to the site which are proposed to be upgraded and one new entrance is proposed along the L70382. The L70382 is a single carriageway cul-de-sac, which, toward its northeastern end, becomes a walking track which connects to the R471, widening at the end where it connects to the R471. The L70382 serves approximately six dwellings and the adjoining farmlands, with an entrance also from the Clonlara Equestrian Centre (its vehicular entrance is onto the R463).
- 7.6.5. Drainage works are proposed at the entrances to the site (existing and proposed) to ensure no surface water flows from the site onto the public road. I accept that the measures proposed in this regard are acceptable and will be effective in ensuring the protection of the public roads and no surface water run-off from the site onto the surrounding area (I refer also to section 7.7 of this report hereunder in relation to surface water management).
- 7.6.6. The Updated Site Access and Drainage Report indicates that the construction period will take 72 months, with a daily average of 13 trips during that period, with a peak of 152 return trips per week during weeks 34-37 of the construction. To mitigate construction traffic the applicant proposes a temporary manually operated stop-go system on the R463, L3046 and L70382, the details of which are to be agreed with



Clare County Council. A left in/left out entrance is proposed for the construction phase at entrance 1 on the R463, which will avoid queuing traffic on the westbound lane. A delivery booking and scheduling system is also proposed to manage construction vehicles arriving and departing the site. I am satisfied that subject to condition, construction impacts, which are short term in nature, can be adequately managed.

- 7.6.7. It is proposed to resurface a section of the L70382 from the R463 junction to the end of the currently paved section (c. 1.55km long) and to pave the unbound areas of the L70382 to site entrance (c. 350m long). While the third party raises concerns that the change in road surface will impact negatively the horses being ridden along this road for exercise, I note that works will be finished in accordance with the standards of the local authority and no safety issues post development, in my opinion, arise. In relation to safety issues during construction, I note with the laying of the cabling and the resurfacing works that there will be disruption to users of the road over a short period of time. The applicant in the response to the grounds of appeal states a construction and environmental management plan will include measures relating to construction traffic to minimise conflict and post construction traffic impacts will be minimal given the low level of operational traffic required. I note the Site Access and Drainage Report compares the level of agricultural traffic generated by agricultural lands versus a solar farm, noting the proposal will overall result in a lowering of traffic volumes during the operational phase given the nature of the operation of a solar farm.
- 7.6.8. I am satisfied that during the operational phase, traffic impacts will be minimal and will have no significant impact over and above what would occur on the existing road network with vehicles accessing the farm lands. I have addressed concerns raised in relation to conflict with horses using the local road and in my opinion no significant issues arise.
- 7.6.9. Overall, I am satisfied that the traffic generated by the proposed development, during both construction and operational phases, would not have a significant adverse impact on the established road network and the issue of construction traffic can be managed by way of condition.

## 7.7. Surface Water Drainage

- 7.7.1. Concerns are raised by the third party in relation to the lack of the Flood Risk Assessment and concerns in relation to potential impact of hard surfaces and the solar panels on the drainage system in the area, including along the public road.
- 7.7.2. Having regard to the 'Infrastructure, Environment and Flood Risk Zones' map in the operative development plan, the site is located within an area identified as Flood Zone C and is therefore not at risk of flooding. No flood events in the area of the site have been identified.
- 7.7.3. The application is accompanied by a Site Access and Drainage Report. A review of the surface water drainage flows is provided in section 9 of the report. There is a network of field boundary drains around the site, and two watercourses in the area of the site. The Oakfield Stream runs through a portion of the site and is a small tributary of the Blackwater River, which is a tributary of the River Shannon. The Blackwater River is c. 500m west of the site and west of the L3046. The field drains in the central and northern land parcels convey surface water run-off towards the Oakfield Stream, connecting to the Blackwater (Clare) River via the Ardnacrusha canal toe-drain to the south. The southern lands drain to the Ardnacrusha canal toe-drain and also connect into the Blackwater (Clare) River. The Blackwater (Clare) River flows into the Lower River Shannon SAC c. 5km (at its closest point) to the south of the site. I note there is no drainage to the canal itself, with the Oakfield Stream and the River Blackwater (Clare) culverted beneath the canal and the headrace canal is enclosed by high embankments.
- 7.7.4. Existing field drains, water courses, existing drainage features, and proposed run-off drainage routes are indicated on the Operational Site Drainage drawings (file ref ABSF-04.dwg, no. 01 and 02) in the appendix of the Site Access and Drainage Report. The drainage network, wider network connections, and water quality are further elaborated upon in the submitted Aquatic Ecological Impact Assessment (dated November 2022).
- 7.7.5. I note the ground conditions at the site are categorised as having three types of bedrock: Waulsortian Limestones (Massive unbedded lime-mudstone); Lower Limestone Shale (Sandstone, mudstone & thin limestone); and Old Red Sandstone (Red conglomerate, sandstone & mudstone). The site is overlaid mainly by AminPD-

mineral poorly drained and peaty poorly drainage (mainly acidic) soils, with a smaller area of peats soils to the southwest of the site (northern field). The southern part of the site is identified as being over a regionally important aquifer; a narrow section of poor aquifer runs through the site and the northern section is over a locally important aquifer. Overall groundwater vulnerability is described as 'moderate'. There are no karst features in the location of the site.

- 7.7.6. It is stated in the documentation submitted that research on the hydrologic response of solar farms indicates that rainwater which falls on angled panels infiltrates through natural processes and that solar farms do not have a significant effect on runoff volumes, peaks or times to peak.
- 7.7.7. The construction process for the solar farm is stated by the applicant to be relatively low impact from a geotechnical perspective and will mimic green field run-off rates when complete, as per existing site conditions. The metal uprights supporting the solar arrays will be driven into the soil without any separate foundations, therefore no excavation is required. It is indicated in the documentation that the mounted panels will be screw or pile driven following geotechnical assessment and may include ballasting systems. There will therefore be no significant changes to the topographical profile of the soil or to the characteristics of the soil as a result of the development. The access tracks to be constructed are to have a permeable surface (compacted gravel) and will be cambered to allow through- and over-the-edge drainage to vegetated swales on either side. The only impermeable areas would be those created by the invertor/transformers which would be a small percentage of the overall site area. A linear drainage system has been designed into the site entrances to intercept any surface water at site entrances and direct such water to soakaways located within the lands. A 10m set-back is proposed from the Oakfield Stream and a 9m set-back from field drains.
- 7.7.8. The internal access tracks on the site will cross the Oakfield Stream at two locations within the northern field parcel with two new culverts proposed to cross the watercourse and one cable crossing under the Oakfield Stream via horizontal directional drilling. A crossing is also planned of the Blackwater (Clare) River at Blackwater Bridge for the proposed grid connection cable utilising horizontal directional drilling with no instream works - this crossing and associated substation will form part of a separate application, however, they are assessed within the

Aquatic EclA, EclA, appropriate assessment and CEMP of this application in consideration of cumulative impacts and to ensure all potential impacts are fully assessed. The construction methodology relating to the proposed two culverts of the Oakfield Stream (incorporating mitigation measures to ensure no run-off or pollution of the stream) is set out in section 9.2.1 of the Site Access and Drainage Report and involved consultation within Inland Fisheries Ireland.

7.7.9. The drainage strategy, which includes mitigation measures through design, comprises inter alia the following measures:

- Generous separation distances between the array rows and substantial buffer strips in a number of areas, to support normal greenfield ground conditions.
- The frames will be pitched at an angle of between 15-25 degrees to a maximum of 3m off the ground to the north of the site and 0.25m off the ground to the south of the site. The angle chosen will mitigate against increased rates of rainwater runoff from the panels (more pronounced angles would have a greater dripline to the ground surface) and the creation of natural conditions to allow seeded grass beneath panels to flourish.
- A programme of grass reseeding and active management alongside landscaping proposals to preserve peak water run-off rates at optimal natural levels.
- Existing perimeter drains will be maintained in support of the existing drainage and infiltration pattern on the site. It is stated that there is adequate capacity in the existing drainage regime and any overgrown drains will be cleaned and cleared of excess vegetation and subject to regular inspection and maintenance.
- Surface water will be prevented from running onto the public road by provision of drainage and soakaways at the entrances to the proposal solar array, as detailed in the Site Access and Drainage Report. All storm water management measures will be subject to periodic testing, review and maintenance.
- An attenuation pond for storage and slow release of surface water from compound areas is proposed.
- The CEMP outlines best practice guidelines and environmental controls to be implemented during construction to ensure protection of all water features.

- 7.7.10. I am satisfied that given the design of the solar array and surface water drainage system to be put in place including maintenance of existing drains, the impacts on the surface water environment will not be significant and the site can be managed to ensure green field run-off rates are maintained with no run-off onto neighbouring lands or the road network.
- 7.7.11. The third party grounds of appeal raises concern in relation to the lack of certainty in terms of the foundations to be used. The applicant in response to this issue states that pre-cast ballasting systems would typically only be used where archaeological investigations confirmed the presence of an archaeological feature or area of sensitivity to be protected. I note that in the case of pre-cast ballast systems, the metal supports instead of being drilled into the ground, are fixed in place through insertion into pre-cast concrete block which sits on the ground beneath the solar panels, with no excavations or undue ground disturbance required. It is contended by the applicant that there is no merit to the claims that the use of such an approach only where necessary in lieu of screw or driven piles would result in additional impacts. I note the PA included a condition in its grant of permission stating that the solar panels shall be fixed in place by way of driven pile or screw pile foundations only unless otherwise authorised by a prior grant of permission and the reason given was 'in the interest of long term viability of this agricultural land and in order to minimise impacts on drainage patterns'.
- 7.7.12. I would acknowledge at the outset that when a construction project goes to site there is a requirement for some design flexibility to address immediate site issues that cannot be completely covered off in the planning process, as site specific minor alterations in the ground characteristics cannot be entirely predicted at planning stage. The applicant has indicated, as per GSI database, what the site characteristics are and has determined that the majority foundation type suitable will be a screw or pile driven solution to the mounting of the solar panel frames. The limited use of ballast systems to address site specific archaeological issues or other site sensitivities which can arise during the construction phase would not in my mind result in a significant and material impact or alteration in planning terms. I consider a condition in this regard requiring separate planning permission to allow for limited use of a ballast type system, which has no significant impact on ground conditions or

soil permeability and does not involve any excavation, is unwarranted. Should the Board disagree, a condition could be applied in the interests of clarity.

## **7.8. Ecology**

- 7.8.1. An Ecological Impact Assessment (EclA) (dated November 2022) was submitted and an Aquatic Ecological Impact Assessment (AEclA) (dated November 2022). A Natura Impact Statement accompanies the application, and an assessment is undertaken in Section 8.0 hereunder in relation to appropriate assessment.
- 7.8.2. The EclA describes the methodology adopted and the baseline terrestrial environment. Likely significant effects on biodiversity are addressed and mitigation measures proposed to avoid/prevent/reduce likely significant effects. The Aquatic EclA adopts a similar approach to the EclA, but with its focus on streams and drains related to the site. Survey work relating to the EclA was undertaken in January 2022 in terms of habitats, survey for invasive species and an assessment for the presence of protected species. Additional surveys were undertaken in June 2022 in relation to breeding birds, badgers, otters and a preliminary bat roost survey. Aquatic surveys were undertaken in December 2021. While the habitat survey was conducted outside the optimal survey period (as noted within the report), I am satisfied that the habitat survey is sufficiently detailed to enable a full assessment.
- 7.8.3. The primary habitat identified related to improved agricultural grassland, with small parcels of wet grassland, bounded by hedgerows, treelines and associated drainage ditches. No evidence of badgers was recorded and the treelines and hedgerows provide limited opportunities for roosting bats and no evidence of roosting bats was recorded in the farms buildings. No evidence of otters was recorded along the Oakfield Stream, however there is potential that otter commute along this watercourse. It is likely that otter forage and commute along the Blackwater (Clare) river. No Annex II or Annex I bird species were recorded at the site.
- 7.8.4. Considerations in terms of European sites, specifically the Lower River Shannon SAC (002165) is considered in detail in section 8.0 of this report.
- 7.8.5. The development includes a 10m set back at a minimum from the Oakfield Stream, which is proposed to be enhanced with perennial grasses and wildflowers. The centre line of the panels will be set back from trees/hedgerows and local drainage

ditches by a minimum of 9m, with measures proposed of riparian planting, hedgerow enhancement and wild grass seeded areas. It is estimated that 319.5m of hedgerows will be removed in order to accommodate site entrances, access tracks and installation of solar panels, however, taking account of landscape measures proposed, it is estimated that there will be a net gain of 39.5m of hedgerows and hedgerow enhancement planting.

- 7.8.6. The fencing proposed around the site (to the inside of existing external boundary hedgerows) is stated to be up to 2m in height and will be stock proof in nature with 2.6m high paladin fencing in some areas depending on security requirements. It is indicated that the fencing will be located inside the site on the inside of existing hedgerow boundaries. It is stated that the installed fencing will incorporate mammal friendly access, with a 300mm x 300mm gap at intervals of 100m. The footings of the fence are stated to be of either pre-moulded or localised in situ-concrete, to be determined once a contractor is appointed. I note the third party raises concerns that the exact construction method for the foundations has not been specified, however, I consider the options as proposed are acceptable and the use of one type versus another is immaterial in planning terms and is within the scope of normal construction design practice.
- 7.8.7. 319.5m linear metres of hedgerow will be permanently removed to facilitate site entrance upgrades, access tracks and cabling work. This will be offset by 359 linear metres of new hedging and the bolstering of an additional 12,527 linear metres where necessary. Riparian and hedgerow corridors and wildflower meadows are proposed to support and enhance biodiversity. I consider the ecological impacts of the proposal will be mitigated by the landscaping measures proposed.
- 7.8.8. Field surveys relating to the Oakfield Stream were undertaken. Potential impacts on the stream are assessed in section 4 of the submitted Aquatic Ecological Impact Assessment having regard to the proposal to for 2 no box culvert crossings of the Oakfield Stream and 1 no. horizontal directional drilling of a cable. Proposals related to the proposed substation and grid connection route (subject of a separate application) are also examined in terms of potential impacts on the Oakfield Stream. Construction mitigation measures are set out in section 5 of the Aquatic EclA and I note consultation had been undertaken with Inland Fisheries Ireland in this regard.

7.8.9. Overall, I consider that the ecological impact of the proposed development is acceptable and will not have a negative impact on overall biodiversity. The Board will note that the site can be reinstated quite easily following the decommissioning of the solar PV farm. The site is located where there are extensive areas of similar habitats in the vicinity of the site which could accommodate any potentially, although unlikely, displaced species. I also consider that the proposal would have no significant or adverse impact on existing aquatic habitats in the area, subject to condition and implementation of best practice construction methodologies as submitted with the application.

## 7.9. **Archaeology**

7.9.1. The Dept. of Housing, Local Govt, and Heritage, Development Applications Unit in their submission on this application requested further information in relation to archaeology, specifically, an Updated Archaeological Impact Assessment to include a targeted archaeological geophysical survey and targeted archaeological test excavation and recommended this information be sought prior to any permission being granted.

7.9.2. In response to the FI requested by the PA in relation to this matter, the applicant stated that they had engaged the services of John Nicholls to undertake a geophysical survey, which could not be undertaken until late January (applicant's response dated....), therefore due to concerns over delays, the applicant requested that the required archaeological works be included as a condition of planning, which the PA agreed to.

7.9.3. In response to the FI from the applicant, the Department submitted a further report (dated 4<sup>th</sup> January 2023) noting time constraints and stating that should the updated archaeological impact assessment process be carried out by way of condition, the applicant is aware that this does not circumvent any obligations in respect of potential archaeological impact and recommends two condition to be applied.

7.9.4. In response to the grounds of appeal and concern raised in relation to archaeology, a letter is included with the applicant's submission from John Cronin & Associates Archaeology (dated 06/04/23) with an accompanying Geophysical Survey of the application lands undertaken by John Nicolls of Target Archaeological Geophysics



Ltd. It states that as per the Archaeological Assessment dated June 2022, the site is of low to moderate archaeological potential, with one unrecorded potential fulacht fia within the southernmost area of the lands which the development is avoiding. The geophysical survey (dated March 2023) was carried out in the five areas of the site that were deemed suitable, covering 7.08ha, all of which is in the southern section of the site. While a large area of the site was excluded, I note it was indicated in the submitted report that only a small portion of the lands were suitable for geophysical survey due to terrain and poorly maintained pasture. The results of the geophysical survey undertaken showed no remains of definite archaeological character and that two distinct concentrations of response corresponded to vernacular buildings, probably former farms, whose remains are evident on the available historic mapping.

7.9.5. I am satisfied that the geophysical survey as undertaken has yielded nothing of specific concern. I am satisfied that further investigative works pre-development, including archaeological monitoring of site development works can be addressed by way of condition should the Board be minded to grant permission.

## 7.10. **Other Matters**

### Procedural Issues

7.10.1. Concerns are raised in relation to project splitting given the proposed substation and underground cabling to connect the solar farm to the existing ESB network has not been included in this application. I note the applicant has indicated that the substation would fall under the definition of strategic infrastructure as per section 182A of the Planning and Development Act 2000 as amended, therefore a separate application needs to be applied for in that regard. I note the submitted Planning & Environmental Report and NIS prepared for this application have considered the potential impacts of the overall development, namely the solar farm and its proposed grid connection in its consideration of cumulative impacts. I am satisfied that the Board has the necessary information before it to allow for an assessment of the cumulative impacts of the overall development, and the application for the substation by way of S182A of the Planning and Development Act 2000 (as amended) would not give rise to project splitting.

7.10.2. The third party submission contends that the drawings and construction methodology has not been adequately detailed. I have reviewed all drawings and documents submitted and I consider that the details, plans and documentation accompanying the application, and supplemented by way of further information, are of the requisite standard to allow for a full and proper assessment of the case and are in accordance with the requirements of the Planning and Development Regulations 2001 (as amended). I further note the PA accepted all the information and validated the application.

#### Availability of Information and Public Consultation

7.10.3. I note the appellant's concerns regarding the availability of documentation on-line, date stamping by the PA of online information, and lack of publication of the pre-application meeting details. This is not a matter for comment by the Board. I note the documents were made available to the public and were circulated internally within the local authority and that the extent of the development proposed is clear from the documentation on file. Whilst concern is expressed as to the level of public participation, it is clear that local residents were aware of the application and engaged in the process by making their views known through written submissions to the Planning Authority in the first instance and to the Board at this appeal stage. I do not consider that public engagement in the process has been hindered.

#### 10 Year Permission

7.10.4. The third party submission contends that a 10 year permission is unwarranted. Having regard to the information submitted by the first party in relation to the timelines involved and having regard to precedent by the Board on this matter, I have no issue with the request by the applicant for a 10 year permission, which should be addressed by way of condition, should the Board be minded to grant permission.

## **8.0 Appropriate Assessment**

### **Compliance with Articles 6(3) of the EU Habitats Directive**

- 8.1.1. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.
- 8.1.2. 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. 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).
- 8.1.3. The application is accompanied by a Natura Impact Statement (NIS) prepared by Greenleaf Ecology dated 30<sup>th</sup> November 2022. It contains a description of the proposed development, the project site and the surrounding area. It contains a Stage 1 Screening Assessment in Appendix A. It outlines the methodology used for assessing potential impacts on the habitats and species within the European Site that has the potential to be affected by the proposed development. It predicts the potential impacts for the site and its conservation objectives (section 5), assesses in-combination effects with other plans and projects, and it suggests mitigation measures (section 6).
- 8.1.4. Having reviewed the documents and submissions 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.

### **Need for Stage 1 AA Screening**

- 8.1.5. 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). 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 in view of the conservation objectives of those sites.

### **Brief Description of the Development**

- 8.1.6. The applicant provides a description of the project in Section 1.3 and 1.4 of the NIS. The development is also summarised in Section 2 of this report. In summary the proposed development entails the construction of solar farm comprising of c. 265,000sqm of solar panels mounted on steel supported structures with associated cabling and ducting, 8 single storey precast control cabins and associated transformer units/inverters, and 2 ring main units, 4.5m wide internal access tracks (compacted gravel), security fencing, and CCTV cameras.
- 8.1.7. The site comprises a number of fields largely in agricultural use, with the boundaries delineated by hedgerows. The dominant habitat on site is improved agricultural grassland. The site is relatively flat to the south and undulating to the north. No Annex I habitats, or habitats of conservation significance, were identified during site survey. The habitats present on the site are not capable of supporting wetland birds. No Annex II species or Annex I bird species were observed on the site.
- 8.1.8. The Oakfield stream runs north-south to the east of the southern parcel of land, along a portion of the northeastern boundary of the southern parcel of the site, and alongside and through the northern parcel of land. The river Blackwater runs north-south c. 580m to the west of the site at its closest point (to the west of the L3046 connecting to Ardnacrusha village). Oakfield Stream is a small tributary of the Blackwater River, which is a tributary of the River Shannon. The lower Blackwater River is part of the Lower River Shannon SAC (002165). The watercourses on the site naturally drain from north to south, with existing field drains and natural flows toward the Oakfield Stream, connecting to the Blackwater (Clare) River via the Ardnacrusha canal toe-drain to the south. I note there is no drainage to the canal, with the Oakfield Stream and the River Blackwater (Clare) culverted beneath the canal and in this way maintain connectivity to the Shannon main channel and SAC downstream. Oakfield Stream flows into the Blackwater River c. 1.5km downstream of the application site, with a confluence with the Lower River Shannon SAC, c. 5km further downstream of the solar array. The southern parcel of the solar array overlies

the Lough Graney Groundwater Body and part of the northern parcel overlies the Ardncrusha ground water body. EPA's Water Framework Directive monitoring of the GWBs in the area indicate there are of good status and not at risk. The site is of 'moderate' groundwater vulnerability and there are no karst features in the vicinity of the proposed works.

8.1.9. 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:

- Surface water related pollution during the construction phase as a result of sediment-laden run-off and pollutants (hydrocarbons and concrete) entering the Oakfield Stream and Blackwater (Clare) river.
- Release of sediment and other pollutants to surface water during decommissioning phase.

#### *Submissions and Observations*

8.1.10. The third party appeal contends that the PA did not follow procedure in terms of appropriate assessment and the screening determination, the NIS has been informed by inadequate assessments of the potential impacts of the proposed development, and given the deficiencies, flaws and lacunae a refusal of permission should issue.

#### *European Sites*

8.1.11. The development site is not located in or immediately adjacent to a European site. In determining the extent of potential effects of the development, the applicant took a precautionary approach in using a 15km radius around the development footprint as a potential zone of influence, with this further refined using the source-pathway-receptor model of impact prediction.

8.1.12. The Oakfield Stream combines with the River Blackwater (Clare) c. 1.5km south of the site, and c.5km further downstream connects into the Lower River Shannon SAC (site code 002165). Taking into consideration the drainage ditches along field boundaries within the site and the proximity of the Oakfield Stream to the River Blackwater and to the Lower River Shannon SAC (site code 02165), there is indirect hydrological connectivity via drainage of the site via the Blackwater (Clare) stream to

the SAC and a possibility that surface water runoff containing silt or contaminants could reach the SAC and have effects on the qualifying interests of the site. The potential for effects on the qualifying interests of this Natura 2000 site cannot, therefore, be screened out and Stage II Appropriate Assessment is required.

Table 1: Screening Summary Matrix and possibility of significant effects

European Site	Qualifying Interests	Distance	Screening Comment
Lower River Shannon SAC (002165)	<p>Sandbanks which are slightly covered by sea water all the time [1110]</p> <p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220]</p> <p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]</p> <p>Mediterranean salt</p>	c. 5km	<p>Potential effects due to indirect hydrological connection from the drainage of the southern portion of the site to the Blackwater (Clare) River c.700m south of the site, which is connected to the Lower River Shannon SAC. The northern portion of the site drains, which confluences with the Blackwater (Clare) River c. 1,.6km downstream of the site, which connects into the Lower River Shannon SAC (c. 5km downstream). Potential impacts relate to construction stage surface water run-off</p>

	<p>meadows (<i>Juncetalia maritimi</i>) [1410] Water courses of plain to montane levels with the <i>Ranunculion</i> <i>fluitantis</i> and <i>Callitricho-</i> <i>Batrachion</i> vegetation [3260] <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Alluvial forests with <i>Alnus</i> <i>glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion</i> <i>incanae</i>, <i>Salicion</i> <i>albae</i>) [91E0] <i>Margaritifera</i> <i>margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra</i> <i>planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Salmo salar</i> (Salmon) [1106] <i>Tursiops truncatus</i> (Common</p>		<p>comprising sediments or pollutants.</p>
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	Bottlenose Dolphin) [1349] Lutra lutra (Otter) [1355]		
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*Mitigation Measures*

8.1.13. 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.

**Screening Determination**

8.1.14. 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 European Site no. 002162 in view of the site’s Conservation Objectives and Appropriate Assessment (and submission of a NIS) is therefore required.

**8.2. The Natura Impact Statement**

8.2.1. The NIS (30<sup>th</sup> November 2022) examines and assesses potential adverse effects of the proposed development on 1 no. designated European Site, the Lower River Shannon SAC (002165).

8.2.2. The NIS is stated as having been informed by best practice guidance for such assessments, a desktop and literature study, including NPWS databases, the synopses, Natura 2000 Data Forms and conservation objectives and EPA mapping, and habitat and species surveys.

8.2.3. The NIS is supported by associated reports submitted with the application, including:

- Ecological Impact Assessment of solar array site and associated grid connection route (November 2022).
- Aquatic Ecological Impact Assessment of solar array site and associated grid connection (November 2022).
- Construction and Environmental Management Plan ( 29<sup>th</sup> November 2022)



- 8.2.4. Section 5 of the NIS contains an assessment of the potential impacts of the proposed development on the identified European Site and in combination effects, while Section 6 sets out a series of mitigation measures.
- 8.2.5. The NIS concluded that there will be no significant effects to the integrity of the designated site.
- 8.2.6. Having reviewed the NIS, all supporting documentation and submissions, I am satisfied that the information allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the abovementioned European sites alone, or in combination with other plans and projects.

### **Appropriate Assessment of Implications of the Proposed Development**

- 8.2.7. The following is an assessment of the implications of the project on the relevant conservation objectives of the European site using the best available 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 examined and assessed. I have relied on the following guidance:
- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. Dublin
  - EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
  - EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC.

#### *Relevant European Site*

- 8.2.8. Lower River Shannon SAC (002165) is subject to appropriate assessment.
- 8.2.9. A full catalogue of this site and its qualifying interests are set out in Table 3.2 (pages 16-23 of the NIS). The conservation objectives relating to the site are set out in table 3.4 of the NIA (pages 25-36 of the NIS). Habitats and species for which direct or indirect impacts were identified for assessment of adverse effects are examined in

view of their conservation objectives, including detailed targets and attributes (Section 5.3.1 of NIS). This was based on ecological surveys, analysis of distribution mapping, ecological requirements of individual species and habitats and impact pathways etc. I have examined and evaluated this scientific analysis. 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](http://www.npws.ie)). I am satisfied that in-combination effects have also been considered and adequately assessed in the NIS.

#### *Aspects of the Proposed Development*

8.2.10. The main aspects of the proposed development that could adversely affect the conservation objectives of European site include:

- Release of sediment and other pollutants to surface water during the construction phase.
- Release of sediment and other pollutants to surface water during decommissioning phase.

8.2.11. Potential impacts (arising from the construction related sedimentation/pollutants) are identified in relation to the Blackwater River as it relates to the Lower River Shannon SAC qualifying interests:

- White Clawed Crayfish – no evidence, but historical EPA records exist from upstream tributaries to the species cannot be ruled out in the affected reach.
- Brook Lamprey - Highly likely, although habitat may be limited owing to historical channelisation and drainage maintenance.

8.2.12. Potential impacts (arising from the construction related sedimentation/pollutants) are identified in relation to the following Lower River Shannon SAC QIs:

- Sea Lamprey and habitats – potential impact on juvenile lamprey density and habitat.
- Brook Lamprey – potential impact on juvenile habitat.
- River Lamprey - potential impact on juvenile habitat.
- Atlantic Salmon – potential impact on number and distribution of redds and water quality.

- Otter – potential for reduction in water quality.

8.2.13. Section 6 of the NIS details mitigation measures to be employed, the majority of which are considered to represent best construction practice measures. The construction mitigation measures include, inter alia, the following:

- Ecological monitoring during construction to be undertaken by suitably qualified Site Environmental Manager acting as Ecological Clerk of Works (ECoW). The ECoW must be present during key parts of the construction phase, ie culvert installations, HDD crossing, in order to protect water quality and avoid potential impacts on aquatic receptors.
- Construction Environmental Management Plan to be implemented by the ECoW.
- Best practice construction methods to be employed during instream works and timing of culvert works, as per guidance and overview from Inland Fisheries Ireland.
- Control of silt/sediment loss during HDD works. The contractor shall employ best practice settling systems. Any preferential over-land flow paths or drains must be bunded or have temporary check dams installed prior to work.
- An Emergency Procedure for HDD frack out is included in the CEMP.
- All trenching works shall be undertaken using a cut and fill procedure to ensure only short sections of no greater than 100m are open at any time.
- Any excavated spoil shall be retained in an area over 10m away from any drain or watercourse and must be surrounded by silt fencing or other containment measures such as geotextile mat or bag, and covered to reduce sediment export.
- Silt traps, check dams and/or bunds will be put in place on either side of dry drain locations.
- Soil stripped in the construction of access tracks will be stored for reinstatement of the temporary work compound. Such material shall be stored not less than 10m from any on-site drain. Stockpiles will be surrounded by staked-down silt fencing.
- No storage of hydrocarbons or any polluting chemicals within 50m of watercourses or surface water features. Any diesel or fuel oils stored on site will be bunded to 110% of the capacity of the storage tank.

- Temporary parking and refuelling areas must be designated with the construction compound and must be at least 50m away from watercourses and drains.
- Best practice biosecurity measures to be put in place.
- Wheel washout facility, as per the CEMP, to be treated via settlement pond/stilling area, with these areas subject to monitoring by the ECoW during the construction phase for elevation pH levels and should this occur, the water must be removed for treatment in an appropriate facility.

8.2.14. I note monitoring is included as best practice and does not imply any uncertainty regarding adverse effects or the effectiveness of any mitigation measure

8.2.15. Section 6.1.3 of the NIS also sets out mitigation measures for the construction of the grid connection route to address potential in-combination effects. I am satisfied that in-combination effects in this regard have been adequately addressed.

8.2.16. For the decommissioning phase, mitigation measures are comparable to those incorporated into construction phase.

8.2.17. Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed. In terms of possible in-combination effects, plans, programmes and existing and proposed developments were considered including the proposed substation which is to be subject of a direct application to the Board. This complete assessment allows for clear, precise and definitive conclusions to be reached in terms of adverse effects on the integrity of European sites.

#### *Cumulative and In-Combination Effects*

8.2.18. Cumulative/in-combination effects have been considered in the submitted NIS with regard to the operative development plan, river basin management plan, IFI corporate plan and Act, WWTP discharges and local planning applications. I have also considered the recently permitted solar farm c. 1.6km west (as the crow flies) of the site, which was subject to its own NIS.

8.2.19. The NIS considered the combined impacts of the overall development proposal on the site including the proposed substation which is to be subject of a separate application to An Bord Pleanála. I consider that any potential for in-combination effects on water quality in the Lower River Shannon SAC is negligible. Furthermore,

other projects within the area which can influence water quality via rivers and other surface water features are also subject to AA.

8.2.20. Following the appropriate assessment and consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of the Lower River Shannon SAC in view of the conservation objectives of this site. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

### **AA Conclusion**

8.2.21. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000 as amended. Having carried out screening for Appropriate Assessment of the project, it was concluded that the likelihood of significant effect on the Lower River Shannon SAC (site code 002165) could not be excluded.

8.2.22. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of that site in light of its conservation objectives.

8.2.23. 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 no. 002165 (Lower River Shannon SAC), or any other European site, in view of the sites Conservation Objectives. 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 Lower River Shannon SAC (002165), detailed assessment of in combination effects with other plans and projects including historical projects, current proposals and future plans, and there is no reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower River Shannon SAC (002165). This is consistent with the findings of the submitted NIS.

## **9.0 Recommendation**

9.1. Having regard to the foregoing I recommend that permission for the above described development be granted for the following reasons and considerations subject to conditions.

## 10.0 Reasons and Considerations

Having regard to:

- national and regional policy objectives in relation to renewable energy,
- the provisions of the Clare County Development Plan 2023 – 2029,
- the nature, scale, extent and layout of the proposed development,
- the topography of the area,
- the existing hedging and screening on the site,
- the pattern of development in the area,

it is considered that, subject to compliance with the conditions set out below, the proposed development would support national and regional renewable energy policy objectives, would not conflict with the provisions of the operative Development Plan, would not seriously injure the visual amenities of the area or the residential amenities of property in the vicinity, would not be likely to have significant effects on the environment, or the ecology of the area, would be acceptable in terms of traffic safety and convenience, would be acceptable in terms of archaeology, and would not give rise to increased risk of flooding of the site or of property in the vicinity. 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 to the planning authority on the 7 <sup>th</sup> day of December 2022, 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 the development and the development shall be carried out and completed in accordance with the agreed particulars.
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	<b>Reason:</b> In the interest of clarity.
2.	<p>The period during which the development hereby permitted may be carried out shall be 10 years from the date of this Order.</p> <p><b>Reason:</b> Having regard to the nature of the proposed development, the Board considered it reasonable and appropriate to specify a period of the permission in excess of five years.</p>
3.	<p>All of the environmental, construction and ecological mitigation measures, as set out in the Planning and Environmental Report (dated June 2022), Natura Impact Statement (dated 30<sup>th</sup> November 2022), Ecological Impact Assessment (dated November 2022) and Aquatic Impact Assessment (dated November 2022) 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.</p> <p><b>Reason:</b> In the interests of clarity and of the protection of the environment during the construction and operational phases of the development.</p>
4.	<p>This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.</p> <p><b>Reason:</b> In the interest of clarity.</p>
5.	<p>(a) This 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.</p> <p>(b) Prior to commencement of development, a detailed restoration plan, including a timescale for its implementation, providing for the recycling of solar panels and their component parts, removal of the solar arrays, including all foundations, anchors, inverter/transformer stations, substation,</p>

	<p>CCTV cameras, fencing and site access to a specific timescale, shall be submitted to, and agreed in writing with, the planning authority.</p> <p>(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.</p> <p><b>Reason:</b> 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.</p>
6.	<p>(a) Existing field boundaries shall be retained (other than those specified for removal in the application documentation), notwithstanding any exemptions available and new planting shall be undertaken in accordance with the Landscape Mitigation Plan (drawings no. LD.BLLYGLSS 3.1 and 3.2) submitted with the application.</p> <p>(b) All landscaping shall be completed in accordance with the details received to the written satisfaction of the planning authority. 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.</p> <p><b>Reason:</b> In the interests of biodiversity, the visual amenities of the area, and the amenities of dwellings in the vicinity.</p>
7.	<p>(a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.</p> <p>(b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the road.</p> <p>(c) Cables within the site shall be located underground.</p>



	<p>(d) The inverter/transformer stations shall be dark green in colour.</p> <p><b>Reason:</b> In the interest of clarity, and of visual and residential amenity.</p>
8.	<p>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:</p> <p>(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.</p> <p>(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.</p> <p>(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</p> <p>(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.</p> <p><b>Reason:</b> 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</p>
9.	<p>The construction of the development shall be managed in accordance with an updated Construction Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall contain:</p> <p>(a) All mitigation and control measures outlined in the NIS (November 2022) Ecological Impact Assessment (dated November 2022) and</p>

	<p>Aquatic Impact Assessment (dated November 2022) and other particulars submitted with the application.</p> <p>(b) Details of all archaeological or cultural heritage constraints as may be identified during pre-development archaeological testing and monitoring.</p> <p>(c) Details in relation to site access and traffic management in accordance with the details submitted with the Site Access and Drainage Report (dated December 2022).</p> <p>(d) Provide details of intended construction practice for the development, including hours of working, noise management measures, and on-site management and off-site disposal of construction/demolition waste.</p> <p>(e) Details of the appointed Ecological Clerk of Works.</p> <p><b>Reason:</b> In the interests of public safety and residential amenity.</p>
10.	<p>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. Prior to commencement of development, a road condition survey on local roads which form part of the identified access route for the site shall be taken 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.</p> <p><b>Reason:</b> In order to ensure a satisfactory standard of development.</p>
11.	<p>Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services. Surface water from the site shall not be permitted to drain onto the adjoining public road or adjoining properties.</p> <p><b>Reason:</b> In the interest of environmental protection and public health.</p>
12.	<p>Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400</p>

	<p>hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.</p> <p><b>Reason:</b> In order to safeguard the residential amenities of property in the vicinity.</p>
13.	<p>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.</p> <p><b>Reason:</b> 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.</p>

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Una O'Neill  
Senior Planning Inspector

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9<sup>th</sup> November 2023

**Appendix 1**  
**Form 1 EIA Pre-Screening**  
**[EIAR not submitted]**

<b>An Bord Pleanála Case Reference</b>	<b>ABP-316043-23</b>		
<b>Proposed Development Summary</b>	10-year planning permission for the construction of solar PV development on a c.74.5 ha site.		
<b>Development Address</b>	Ballyglass, Coolderry, Dromintobin North, Reanabrone and Oakfield (townlands), Ardnacrusha, Co. Clare		
<b>1. Does the proposed development come within the definition of a 'project' for the purposes of EIA?</b> (that is involving construction works, demolition, or interventions in the natural surroundings)		<b>Yes</b>	<input checked="" type="checkbox"/>
		<b>No</b>	<input type="checkbox"/>
<b>2. Is the proposed development of a class specified in Part 1 or Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) or does it equal or exceed any relevant quantity, area or limit where specified for that class?</b>			
<b>Yes</b>	<input type="checkbox"/>		
<b>No</b>	<input checked="" type="checkbox"/>		Proceed to Q.3
<b>3. Is the proposed development of a class specified in Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) but does not equal or exceed a relevant quantity, area or other limit specified [sub-threshold development]?</b>			
		<b>Threshold</b>	<b>Comment (if relevant)</b>
			<b>Conclusion</b>
<b>No</b>	<input type="checkbox"/>	N/A	
<b>Yes</b>	<input checked="" type="checkbox"/>	Class 1 of Part 2 of Schedule 5, (a) Projects for the restructuring of rural land holdings, where the length of field boundary	Proceed to Q.4

		to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or where the area of lands to be restructured by removal of field boundaries is above 50 hectares.		
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<b>4. Has Schedule 7A information been submitted?</b>		
<b>No</b>	✓	<b>Preliminary Examination required</b>
<b>Yes</b>		<b>Screening Determination required</b>