



An
Bord
Pleanála

Inspector's Report

ABP-312723-22

Development

Solar energy plant and ancillary equipment. Associated site development works. Significant Further information/Revised plans submitted on this application. NIS submitted with FI.

Location

On lands including Derryclare, Cloneymeath, Ballygortagh and Moynalvy, Summerhill, Co. Meath.

Planning Authority

Meath County Council

Planning Authority Reg. Ref.

21985

Applicant

Energia Solar Holdings Limited

Type of Application

Permission

Planning Authority Decision

Grant Permission

Type of Appeal

Third Party

Appellants

1. Moynalvey Solar Development Opposition Group
2. Eco Advocacy

Observers

3. The Local Summerhill/Moynalvey Residents Group
4. Frank and Veronica Martin
1. John Melia
2. Charles dAdhemar and Katie O'Rourke
3. Jason Browne
4. Derek Teehan

Date of Site Inspection

16th May 2022

Inspector

Máire Daly

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1.0 Site Location and Description

- 1.1. The subject site which has a stated area of c. 108.68ha, comprised of 17 no. fields, is located in a rural area of County Meath approximately 0.8km northeast of Summerhill and 6.12km southeast of Trim. The site is comprised of three separate land parcels which consist of the Western Area (Site Area 1), the Central Area (Site Area 2) and the Eastern Area (Site Area 3). Land in the area is predominantly pasture with smaller pockets of arable land also.
- 1.2. Site Area 1 is the most westerly located land parcel and is located in the townland of Derryclare c. 280m to the northwest of Site Area 2, separated by agricultural lands. This area comprises fields numbered 1 to 6 with access to be achieved off the L6209 (Basketstown Road) to the south. Land within this area rises up from the access road to the east and is relatively flat to the west, with levels ranging from 71 to 77m AOD. The fields on the subject parcel are bound by a mixture of trees, mature hedgerows and post and wire fencing with internal drainage ditches along many of the boundaries.
- 1.3. Site Area 2 is the centrally located land parcel which is located in the townland of Clonymeath c. 300m to the west of Site Area 3. This site area is divided into two land parcels, one to each side of the L2210 road which runs in a northeast to southwest direction through the middle of the parcels. This central Site Area 2 is comprised of fields no. 7 to 14 and access to the areas is provided via two existing field accesses off the L2210. The subject fields are currently in grazing use and have mature hedgerows and treelines running along their boundaries. The land ranges in level from 76m to 103m AOD.
- 1.4. Site Area 3 is the most easterly site and is located in the townland of Moynalvy. The access road to the site branches off the R156 regional road and travels through an existing farmyard with agricultural structures on either side in the form of large sheds. This parcel is comprised of field no. 15, 16 and 17. This site is surrounded on all sides by agricultural lands and the subject parcel ranges in level from c.83m to 104m AOD.
- 1.5. The surrounding area is generally comprised of agricultural land uses with a number of quarries also noted in the immediate vicinity. Various dwellings and farmsteads

are dispersed throughout the rural area with access directly off local roads or via longer farm access avenues.

2.0 Proposed Development

2.1. Permission is sought for a solar farm on three separate land parcels comprising:

- Solar photovoltaic (PV) panels mounted on metal support structures on a site area of c. 108.68ha with an output of up to 70.6 MW DC.
- 27 no. MV Power Stations – measuring c. 6.06m (L) x 2.44m (W) x 2.9m (H) on concrete plinth foundations of c.0.3m above ground level - Giving total height of c. 3.2m and total area of 365.3sqm
- 43 no. small infra-red lighting and CCTV camera units on 3.5m high galvanized steel posts
- Access tracks
- Cable trenching and backfilling
- 3 no. substations are included in the development, one for each land parcel. These will house the switchgear and metering equipment, measuring c.12m(L) X 8m(W) X 4.7m(H) the substations will be built upon a concrete foundation – with total area 288sqm.
- 3 no. temporary construction compounds – 50m x 60m
- Security fencing c. 2.4m high and total length 9,994m - comprised of deer fencing with wooden posts at circa 3-metre centres. gaps for mammals will be included at regular intervals
- Landscaping and ancillary works.

2.2. According to the submitted Planning Statement (Section 1.4) it is proposed that the lifetime of the permission will be 10 years with the operational life of the development proposed at 35 years. Given the lead in time for such projects this is considered appropriate.

2.3. The proposed panels will be mounted on metal frames arranged in rows running east to west and fixed to pile driven galvanised steel posts. The panels will be positioned

at an angle of between 15-30 degrees from the horizontal with proposed maximum height of 3.2m to the top of the panel frame, including up to 0.8m of ground clearance.

- 2.4. The 3 no. temporary construction compounds will contain temporary site facilities (porto cabins) to be used for site office and welfare facilities including provision for sealed waste storage and removal stop container storage units for various uses, refueling compound for construction vehicles and machinery, chemical toilets, adequate parking areas for cars, construction vehicles and machinery, designated skips for construction waste and wheel washing facilities.
- 2.5. There would be four separate access points into the overall application site with additional and upgraded access tracks to be constructed to allow access for construction, operation, maintenance and decommissioning of disorder panels and associated infrastructure. The tracks will measure 3.5m wide and extend the length of c. 7,000m (area of c. 24,500sqm in total). The width of some tracks will increase at bends and at entrance points.
- 2.6. In addition to standard planning application plans and particulars the application was accompanied by:

Volume 1:

- Planning Statement
- Appropriate Assessment Screening

Volume 2:

- Infrastructural Drawings

Volume 3:

- TA1: Landscape and Visual Approval (LVA)
- TA2: Ecological Impact Assessment (EclA) – also containing Biodiversity Management Plan
- TA3: Archaeology and Architectural Heritage Impact Assessment (AAHIA)
- TA4: Flood Risk and Drainage Impact Assessment (FRDIA)
- TA5: Construction Traffic Management Plan (CTMP)

- TA6: Noise Impact Assessment (NIA)
- TA7: Glint and Glare Assessment (GGA)
- TA8: Outline Construction Environmental Management Plan (OCEMP)

2.7. A further information request was issued by the planning authority on 15th July 2021. A response to same was received on 29th October 2021. The response included the following:

- Review and response to the submitted third party submission
- Transport Consultation and updated Layout Plan and Visibility Splays
- Geophysical Report
- Proposed Archaeological Mitigation
- Updated AAHIA
- Natura Impact Statement (NIS)
- Cumulative Assessment report
- Additional Viewpoint for LVA (Viewpoint 10 – Hill of Tara)
- Updated Landscape and Ecology Management Plan (LEMP)
- Section Drawing

2.8. The planning authority determined that the information received was significant and requested that revised notices be published. These notices were published in November 2021. Following consideration of the significant further information Meath County Council (MCC) granted permission for the proposal in January 2022.

2.9. A grid connection will also be required to connect to the proposed development to the national grid, however this component will be dealt with through a separate process, should this current application be consented.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. Permission was granted by Meath County Council (MCC) on 17th January 2022 subject to 26 no. conditions. These conditions relate to, inter alia, confirmation of the

output capacity, sightlines, mitigation measures in relation to Glint and Glare Assessment, aircraft and vehicular safety, location of transformers/inverters/substations subject to written agreement, exact details of infrastructure and fencing, landscaping to be carried out in compliance with the Landscape & Ecology Management Plans, submission of a Construction Stage Traffic Management Plan, compliance with mitigation measures under Section 5.96 of the Construction Traffic Management Plan, achievement of required visibility lines, flood prevention, material and fuel storage, requirement for updated Construction Environmental Management Plan, waste management, submission of an Archaeological Impact Assessment, 35 year operational term, public lighting, pre- and post-construction surveys of local roads, cash deposit of €50,000 to secure satisfactory completion of any repairs to the roads and lodgement of a cash deposit to secure the satisfactory reinstatement of the site, and a Section 48 development contribution.

- 3.1.2. Advice notes were also attached to the permission which included the requirement to consult with Inland Fisheries Ireland (IFI) prior to commencement of development regarding cable laying or works that involve the crossing of watercourses. Consent is also required from OPW prior to commencement for the proposed culvert under Section 50 of the Arterial Drainage Act.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The planning authority decision is based on two planning reports. The planning authority's first planning report (dated July 2021) considered, inter alia, the principle of the proposed development, the siting, layout, and design of the proposed development, access and tracks, traffic and parking, cultural heritage, natural heritage, flooding and hydrology, noise and nuisance, landscape and visual impact, glint and glare, Appropriate Assessment (AA), and Environmental Impact Assessment (EIA).

Further information was recommended in relation to 1. Roads – applicant required to demonstrate unobstructed sightlines, 2. Archaeology - Archaeological Assessment required to include geophysical assessment, 3. Visual Impact Assessment of

development on listed Recorded National Monuments, 4. Stage 2 Appropriate Assessment – Natura Impact Statement required, 5. Cumulative Impact Assessment with adjoining proposals/developments (MCC planning ref. 21546), 6. Visual Assessment from the Hill of Tara and protected viewpoint 44, and also to include assessment cumulatively with adjoining development (MCC Ref.21546), 7. Address third-party submissions received.

The second Planning Report (dated January 2022) considered the applicant's further information response. The report concludes that, the applicant has addressed the points of further information in a satisfactory manner and that the proposed development is considered acceptable in the context of the Meath County Development Plan 2021-2027 subject to conditions.

3.2.2. **Other Technical Reports – Internal reports**

Transportation Department:

Response dated 02/12/21 - Following the further information response three conditions should be included in any grant of permission. These relate to sightlines, submission of a Construction Stage Traffic Management Plan prior to commencement of development, and implementation of identified mitigation measures as per Section 5.96 of the Construction Traffic Management Plan.

Conservation Officer:

Response dated 03/12/21 – It was considered that a satisfactory response was received which included an amended Archaeological & Architectural Heritage Impact Assessment. Three conditions should be included in any grant of permission. These relate to compliance with the 1. MCC Rural Design guide for any proposed service buildings 2. Finishes for exposed structures/metal fences/gates to be matt dark green. 3. Archeological desk top study to be completed, pre-site testing and on-site archaeological monitoring.

Water services:

Response dated 14/06/21 – Should permission be granted two issues shall be addressed to the satisfaction of the planning authority prior to commencement; 1. Applicant shall submit consent for any proposed culverts to the OPW under Section

50 of the Arterial Drainage Act. 2. All works shall comply with the Greater Dublin Strategic Drainage Study Regional Drainage Policies Volume 2.

Fire Officer:

Response dated 23/06/21 - No objection. Applicant should be advised however to contact the fire authority to review the project in more technical detail.

Environment Department - Flooding:

Response dated 13/07/21 – No objection subject to conditions in relation to 1. Section 50 consent from the OPW for any proposed watercourse crossings/works proposed. 2. No development within 10m of watercourses on site to facilitate ongoing maintenance by the OPW or other parties unless agreed with the OPW. 3. Fencing within Flood Zone A & B limited to deer fencing or similar and shall not extend into watercourses. 4. No gates or fences shall impact on water flow 5. Minimum freeboard of 300mm within the vicinity of the approximated 1000 year flood zone. 6. All access tracks within Flood Zones A and B shall not be raised above the local ground level. 7. No permanent or temporary stockpiling of materials within Flood Zone A or Flood Zone B.

3.3. Prescribed Bodies

Irish Aviation authority (IAA) – Response dated 17/06/21 - No observations.

Irish Water - Response dated 19/06/21 - Applicant to submit for approval the proposed ducting details associated with the development. Details to include number and size of ducting, ducting route and ducting termination point.

Gas Networks Ireland - Response dated 10/08/21 - there is a gas transmission pipeline (14m wide) within the immediate vicinity of the subject site. While GNI has neither comment nor objection to the application they ask that conditions obliging the applicant to contact GNI in advance of any site works be attached to any granted permission and that the applicants complete all such works in the vicinity of the gas transmission pipeline in compliance with the 'Code of Practice, Working in the vicinity of Transmission Network 2021'.

Department of Housing, Local Government and Heritage - Response dated 22/11/21 – In response to further information received – it is noted that the

geophysical report is at a draft stage and that it includes information relating to the identification of ‘five probable features’ and ‘three possible features or areas’. Furthermore, it is noted that the Archaeology and Architectural Heritage Impact Assessment Report was written in advance of the results of the geophysical survey. As such there is no detailed description of the impact of the proposed mitigation of the impacts of the proposed development. The Department recommends conditions in relation to archaeological mitigation and pre-development testing.

3.4. Third Party Observations

3.4.1. 7 no. 3rd party submissions were received on foot of the planning application. The concerns raised can be summarised as follows:

- Negative visual impact
- Inappropriate land use when roof spaces could be used
- Loss of agricultural lands
- Compliance with EU Habitats Directive and SEA Directive questionable
- Efficiency of solar panels and carbon footprint questioned – source of materials and aggregate
- Impact on archaeological remains
- Lack of national guidance on solar farm installations
- Glint and glare impacts and impact on road users.
- Flood risk
- Traffic impact assessment required
- No EIAR was submitted
- No community benefit
- No cumulative assessment with other applications in particular large solar farm application MCC Ref. 21546 which will result in a super-sized solar farm in the area
- No details regarding grid connection

- Lack of assessment of wildlife impacts
- De-valuation of adjacent properties
- Potential for EMF radiation
- No study on potential leaching of toxic chemicals
- Pollinator friendly plants should be required.

3.4.2. Revised public notices were published following the further information response. Five additional observations were received on foot of this. The main issues raised are largely covered by the grounds of appeal, observations on the grounds of appeal, and observations received by the planning authority as outlined above in Section 3.4.1 of this report.

4.0 Planning History

4.1. Subject site:

Site Area 1: No recent history.

Site Area 2 (North): No recent history.

Site Area 2 (South):

- Meath County Council (MCC) Ref. 211220 – Permission granted in November 2021 for two storey dwelling, detached domestic garage, entrance and driveway. The development also includes the installation of new proprietary wastewater treatment system and polishing filter together with all associated site works.
- MCC Ref. 211424 – Permission granted in December 2021 for the development consisting of two storey dwelling, detached domestic garage, entrance and driveway. The development also includes the installation of new proprietary wastewater treatment system and polishing filter together with all associated site works.

Site Area 3 (Moynalvey);

- MCC Ref. RA140702 – Permission granted in January 2015 for development consisting of the infilling of lands with material consisting of non-hazardous soil and stones and mixtures of concrete and brick. Permission was also

sought for the temporary installation of a wheel wash unit at the main entrance gate for the duration of the infilling process; along with two temporary onsite portable toilets. An Article 6(3) of the Habitats Directive Screening for Appropriate Assessment Report was prepared in respect of the proposed development. An Environmental Impact Statement was submitted with this application. Significant Further Information/Revised plans submitted on this application.

4.2. **Adjacent Site:**

- ABP Ref. 311760-21 (MCC Ref. 21546) – Permission granted in May 2022 for Photovoltaic (PV) development within the townland of Clonmeath, Summerhill, Co Meath. Planning permission is sought for the construction and operation of a solar PV farm consisting of solar arrays on ground mounted steel frames, with a maximum overall height of 3 metres, over an area of 91.9 ha and ancillary equipment including up to 30 no. medium voltage power stations, 1 no. modular Battery Energy Storage Compound (comprising up to 5 no. battery containers) and all other associated site development works and services, including, internal solar PV farm, underground electrical cabling and ducting, 2 no. temporary construction compounds, security fencing, CCTV camera stands, replacement of an existing site entrance with a new gated site entrance via the L2210 local road, provision of new internal access tracks including the upgrading and installation of span bridge structures, site drainage and landscaping, as required to facilitate the development. Planning permission is sought for a period of 10 years with an operational life of 35 years from the date of commissioning. The application is accompanied by a Natura Impact Statement (NIS). Significant Further Information/Revised plans submitted on this application.

4.3. **Sites in the vicinity:**

- Site c.1.7km to the east of current appeal site - ABP Ref. 314058 – (P.A. Ref. 212214) – Application currently on appeal with ABP – Permission granted by MCC in June 2022 for a solar PV Energy Development with a total site area of 206ha, to include solar panels mounted on steel support structures,

associated cabling and ducting, 54 No. MV Power Stations, 2 No. Client Substations, 4 No. Temporary Construction Compounds, access tracks, boundary security fencing and security gates, CCTV, landscaping and ancillary works, accessed via two existing accesses along the L62051. The application is accompanied by a Natura Impact Statement (NIS).

- Site to south of Area 1 - ABP Ref. VC17.310076 - Application to construct a 100kV AIS Substation and IPP compound to the southwest of and adjacent to the Clonmeath Solar Farm was subject to a separate planning consent process with An Bord Pleanála under Section 182E (ABP Ref. VC17.310076) to allow the Board to determine whether section 182B process is applicable to this development.

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

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

- Site c.1.9km to the southeast - P.A. Ref. RA170766 – Permission granted in April 2018 for photovoltaic solar farm on a site of 23.6 hectares (58 acres) with an export capacity of approximately 8MW, comprising photovoltaic panels on ground mounted frames; 4 no. inverter stations; 1 no. interface substation; ducting and underground electrical cabling; perimeter fencing; pole mounted CCTV cameras; screen planting/landscaping; closing up of existing vehicular entrance and creation of a new vehicular entrance on the local road (L6215); new internal access track from the new vehicular entrance to connect with existing internal farm tracks, and all ancillary works necessary to facilitate the development. Significant further information/revised plans submitted on this application. Permission granted for a period of 25 years.

5.0 Policy Context

5.1. European, National and Regional Policy

Climate and Energy Policy Framework 2030

- 5.1.1. The Climate and Energy Policy Framework 2030 includes EU-wide targets and policy objectives for the period between 2021-2030. It seeks to drive continued progress towards a low-carbon economy and build a competitive and secure energy system that ensures affordable energy for all consumers and increase the security of supply of the EU's energy supply. It sets targets of at least 40% reduction (set to raise to at least 55%) in green-house gas emissions and at least 32% share of renewable energy from all energy consumed in the EU by 2030.

Revised Renewable Energy Directive 2018/2001/EU (December 2018)

- 5.1.2. It sets out a new target for share of energy from renewable sources in the EU to at least 32% for 2030, with a review for increasing this target through legislation by 2023. A major shift within the revision is the way in which Member States will contribute to the overall EU goal. It requires Member States to set national contributions to meet the binding target as part of their integrated national energy and climate plans.

Climate Action Plan (CAP) 2021 – Securing Our Future

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

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

Project Ireland 2040 National Planning Framework (NPF)

- 5.1.4. The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It will be focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 is 'Transition to a Low Carbon and Climate Resilient Society' and it is expanded upon on page 147 of the NPF. There is a national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. 'This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand'.
- 5.1.5. The 'Energy Production' part of Section 5.4 (Planning and Investment to Support Rural Job Creation) notes that rural areas will continue to significantly contribute to the energy needs of the country. 'In meeting the challenge of transitioning to a low-carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment and respecting the needs of people who live in rural areas'.
- 5.1.6. National Policy Objective (NPO) 55 states 'Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050'.

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

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

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

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

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

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

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

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

5.2. Local Policy

Meath County Development Plan 2021-2027

5.2.1. The Meath County Development Plan 2021-2027 is the operative plan and came into effect on 3rd November 2021. The following policies and objectives are of particular relevance:

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

5.2.3. Chapter 6 (Infrastructure Strategy) notes that ‘International, EU and National policies all promote a much more energy-efficient society relying on sustainable renewable energy sources. This will ensure that we secure our international competitiveness by increased use of and demand for indigenous resources and increased security of

supply. Consequently, policies and objectives promoting energy efficiencies and the development of indigenous resources will be pursued during the lifetime of this Plan.

- 5.2.4. This Development Plan has an overarching role in progressing a sustainable energy future for the County by recognising the central role of land use planning in promoting a low carbon society and mitigating the impacts of climate change'. Solar energy is specifically referenced in Section 6.15.3.1. Policies in Chapter 6 that generally support renewable energy include INF POL 34 ,35 and 36 and similar objectives include INF OBJ 39 and 41.
- 5.2.5. Chapter 7 refers to Water, Drainage and environmental services with policies WS POL 29 and WS POL 32 relating specifically to flood risk assessments. Objective INF OBJ 28 of Chapter 6 specifically refers to solar farm developments within Flood Zones A or B.
- 5.2.6. Chapter 8 outlines policies and objectives in relation to Cultural and Natural Heritage. Policies HER POL 2, HER POL 3 and HER POL 4 aims to protect sites and features of archaeological interest and seeks archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, for development in the vicinity of monuments or in areas of archaeological potential or where development proposals involve ground clearance over a certain area/length. HER POL 37 aims to encourage the retention of hedgerows and distinctive boundary treatments in rural areas. Policy HER POL 49, 50 and 52 seek to protect and enhance the character and distinctiveness of landscapes in accordance with the Meath Landscape Character Assessment and requires landscape and visual impact assessments for development which may have significant impact on landscape character areas of medium or high sensitivity.
- 5.2.7. Chapter 10 (Climate Change Strategy) notes that it is essential to move away from using conventional coal and gas-fired power to electricity generated from renewable sources.
- 5.2.8. Under Chapter 11 Development Management Standards and Land Use Zoning Objectives stated that it is the policy of the Council, as set out in DM POL 27, 'To encourage renewable development proposals which contribute positively to reducing energy consumption and carbon footprint'. DM OBJ 76 outlines the criteria to be considered in individual energy development proposals e.g., environment, traffic,

landscape etc. DM OBJ 77 relates specifically to solar energy and outlines what is required to be submitted with such a planning application e.g., glint and glare assessment, CEMP, ecological assessment, archaeological assessment, traffic assessment etc.

- 5.2.9. The landscape character assessment, attached as Appendix 5 to the Plan identifies the site as being located within two areas – LCA 6 – Central Lowlands (Site Area 1 and parts of Site Area 2 and 3) and LCA12 The Tara Skryne Hills (Site Area 2 and 3). The site is in a mix of Moderate and High sensitivity landscape.
- 5.2.10. The site is zoned as 'RA Rural Areas'. It is an objective to protect and promote in a balanced way, the development of agriculture, forestry and sustainable rural-related enterprise, community facilities, biodiversity, the rural landscape, and the built and cultural heritage in RA Rural Areas. Among a list of permitted uses are sustainable energy installations and utility structures.

5.3. Natural Heritage Designations

- 5.3.1. The closest Natura 2000 site is the River Boyne and River Blackwater SAC (Site Code 002299) and River Boyne and River Blackwater SPA (Site Code 004232) approx. 5.4km north of the subject site. The closest heritage area is Rathmoylan Esker proposed NHA (Site Code 000557) approx. 4.5km west of the site. The Royal canal pNHA (Site Code 002103) is located approx. 6km south of 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 Environmental Impact Assessment Report (EIAR). Development of a class included in Part 1 requires mandatory EIA. Development of a class included in Part 2 is subject to thresholds and may require EIA. Solar farms are not listed as a class of development under either Parts 1 or 2 of Schedule 5, and therefore, I conclude that a mandatory EIA, and the submission of an EIAR, is not required. There are projects under item 3 of Part 2 of the P&D Regulations (2001) as amended, 'Energy Projects' which relate to energy production, but I suggest that none of these listed projects would be applicable to a solar farm as currently proposed. The Board will note that a similar

conclusion has been reached in relation to previously decided solar farm developments. Please also note that this issue is further discussed under Section 7.5 of the assessment below.

- 5.4.2. Having regard to the above, I am satisfied that the submission of an EIAR is not required for the proposed development. It should be noted that the planning application is accompanied by a Planning Statement as well as technical appendices.

6.0 The Appeal

6.1. Grounds of Appeal

- 6.1.1. Four third-party appeals were received in total from 1. Moynalvey Solar Development Opposition Group 2. Eco Advocacy 3. John Melia on behalf of the Local Summerhill/Moynalvey Residents Group and 4. Frank and Veronica Martin. The appeals raise common issues which in the interest of succinctness I have summarised as follows:

- Landowners' consent was obtained from a number of individuals and all of the consents have been provided to a party other than the applicant, namely 'Energia Solar Holdings' and not 'Energia Solar Holdings LTD' who is in fact the applicant. The application is therefore fundamentally flawed in that the landowners' consent has not been provided to the applicant.
- Furthermore, no details are provided as to the nature of the agreement between parties e.g. length of time the land will be used for the purpose of solar farm.
- Certain specifics of the development have not been specified as part of the application e.g., how many structures it is intended to construct/erect nor the area of ground to be covered by such solar panels in hectares/m³, nor the projected MW output from the installation. The application should therefore be deemed invalid.
- This proposed development is for an inappropriate developer led proposal rather than one based on national and strategic planning. No national strategy

concerning the development of solar farms is in place, the current application is therefore premature. Often these developments split communities and do not benefit the whole community. Joined up thinking and landscape policy is required to address these developments.

- Neither solar or wind power are dispatchable forms of energy and require backup with by mainly fossil fuels. Deep-bore geothermal is an alternative dispatchable energy which should be looked at. Other sources of renewable power generation should also be examined e.g., hydrogen, tidal, wave, biofuel, hydroelectric.
- Flawed financial support system - The RESS provides for grant incentives which encourage these types of inappropriate developments. A cost benefit analysis should be conducted to establish value for money given the resources required taking into account the intermittent nature of solar energy.
- The proposed fixed installation (not tracking sun) is an inefficient use of resources.
- The northern latitude of Ireland and the proposed location is not efficient in terms of capturing solar energy.
- The use of existing roof space should be considered over prime agricultural lands. The destruction of agricultural lands in this manor is contrary to the European Landscape Convention. Loss of prime agricultural lands and change of landscape to industrial development zone. The war in Ukraine has now further highlighted the importance of productive agricultural lands in ensuring food security.
- Cumulative impacts on landscape in combination with other development has not been correctly considered.
- The proposal materially contravenes the development plan objective LCOBJ2 – located in central lowlands area with high landscape sensitivity. Part of the site is located within the Tara/Skryne hills landscape character area with exceptional landscape value and high landscape sensitivity. The Board are required to consider the proposal as a materially contravention having regard to Section 37(2).

- Archaeology – geophysical analysis should be conducted.
- Ireland’s Ancient East – the proposal is contrary to tourism objectives, Hidden Heartlands and Boyne Valley – visual impact on such a historical environment where so many large solar farms will be located in close proximity to each other.
- No details of how electricity generated will be transmitted to the National Grid, will additional pylons and substations be required or underground cabling etc. consequent impacts on visual landscape and environment.
- The Board should also be satisfied that the development complies with the EIA Directive and Habitats Directive (various reference to caselaw concerning the EIA and Habitats Directives have been listed in the appeal).
- The proposal is contrary to the SEA Directive which provides that programmes/plans/projects should be conducted as a whole and not in isolation. The current application is a project, and it is considered that one cannot go to a project without first having a plan or programme conducted.
- Human rights issues – exploitation of workers /labour to make solar panels in countries like China.
- Where will the aggregates required for construction be sourced from? Is there evidence that they will be sourced from authorised extraction industry only? Can the precise quantities of aggregate required be given?
- Major issues with the disposal of solar waste/decommissioning process.
- The proposal will have a large carbon footprint by necessitating the manufacturing of steel support structures and other component parts and also use of large amounts of cement. The Board should also examine the issue of run-off in greater detail and possible impacts of pollution from chemical/metal escape to groundwater (Cadmium Telluride, Gallium Arsenide, lead, trifluoride, sulphur hexafluoride).
- Certain plans and drawings submitted would appear to be indicative and correct scales in accordance with the Planning and Development Regulations 2001 have not been adhered to.

- Four distinct applications should have been made, one for each of the sites involved.
- A comprehensive Stage 2 AA has not been carried out by MCC – precise and definitive findings were not presented. Major concerns regarding the impact of construction works on aquatic qualifying interests.
- The road system proposed to, from and within the development exceeds the mandatory length for a private roadway (2km) and requires mandatory EIA as per Schedule 5 Part 2 10(dd) of the P&D Regs 2001, as amended.
- If full project is laid out in one application, it may warrant an EIA – splitting project into two parts (solar farm and grid connection separately) downplays the true nature and extent of the proposed development. Absence of any grid connection details also undermines and invalidates the assessment carried out for the purposes of the Habitats Directive.
- No appropriate assessment of birdlife has taken place. Desktop study is inadequate. Inadequate consideration also of otter in AA screening.
- Serious concerns regarding the cumulative impacts of the proposal with other permitted and proposed developments c. 500 acres in total in the immediate vicinity.
- Concerns have also been raised regarding the AA carried out and the in-combination effects with other permitted solar farms which have not been adequately considered. Also concerns raised in relation to possible leaching of toxic chemicals into underground waterways.
- Biodiversity impacts – pine marten and foxes likely to be impacted by the proposal.
- The proposed site includes an area which constitutes an unauthorised development – landfill development on Moynalvey site (MCC Ref. RA140702), unauthorised builders' rubble. Conditions in relation to previous grant of permission regarding permitted landfill materials, mitigation measures, landscaping/planting and visual impact have not been carried out to date.

- Flooding – the water table in the Summerhill/Moynalvey area is very high and there are numerous natural springs. Concerns regarding increased risk of flooding due to the non-uniformity of rainfall on the land beneath the solar panels. Moynalvey site – current access road is culverted at the river by means of two concrete pipes and this is wholly inadequate and has created an obstruction with significant consequences upstream for flooding at e.g., Moynalvey Bridge – consequent effects also for Natura 2000 sites.
- Pollution concerns as a result of detergents used on solar panels and consequent impacts on aquatic species.
- The CEMP fails to accurately capture and assess the incremental traffic volumes and capacity requirements of the L2210. This is the main route used for those travelling from Kildare to north-eastern towns in the Meath and Louth areas. The road surface of same road is in very poor repair, contrary to what the Construction Traffic Management Plan, Section 5.47 states. The L6215 cannot accommodate the sort of construction traffic envisaged, impact on local schools.
- Concerns regarding privacy and the operational and catchment area of the proposed surveillance cameras.
- Glint and glare impacts, no mitigation measures are proposed other than preserving existing hedgerows. Planted spoil berms should be included.
- Concerns regarding devaluation of property in the area. Overwhelming negative impact of the development on the views from homes and gardens. It would take 5-10 years for the proposed planting to mature and create screening. This is not acceptable, and the privacy of surrounding residents will be negatively impacted from solar glare.
- Lack of public consultation.
- The EMF radiation exposure levels as a result of the proposed solar farm on properties in the area should be determined.
- Noise studies carried out through simulation software with no actual and baseline data from actual solar sites.

6.2. Applicant Response

6.2.1. The applicant's response to the third-party grounds of appeal dated 21st March 2022 (prepared by Neo Environmental Ltd. on behalf of the applicant) can be summarised as follows:

Landowner Consent

- Whilst it is noted that the "Limited" has been missed from the landowners consent letters and original site notice, the body of the letter clearly states that such consent has been provided to Energia Solar Holding Limited. On this basis the applicant argues that no one was misled by this omission which was a clerical error.

Inadequate Particulars

- There are no specifications within the P&D Regs 2001, as amended, that state that the minimum number of panels should be stated within the planning description. The regulations state that public notices should give "a brief description" of the nature and extent of the proposed development. Details in relation to gross floor space of the works is contained in the submitted plans and particulars associated with the application.

Life and Duration of Permission and Megawatt Output:

- It was confirmed that the life of the permission is 10 years; the operation and restoration plans is for 35 years and an output of 70.6MW DC is proposed. These details are presented on page 5, Section 1.4 of the submitted Planning Statement.
- Plans and particulars relevant to the most likely option for the panels and their positioning have been submitted, however it is acknowledged that as Solar PV is continually advancing these details may vary to ensure the most efficient infrastructural specifications available at the time of construction will be used. This approach has been widely accepted by separate planning authorities with appropriate conditions attached to any permissions to ensure the relevant information is submitted to PAS in advance of construction.

EIA, SEA and EU Directives

- There is no requirement to submit an EIAR; the applicant sets out the legislation relating to EIA requirements.
- It is contended that the temporary access/maintenance tracks that are proposed as part of the development are not private roads and do not have the characteristics of a road as ordinarily understood. The access/maintenance tracks are on private land and are proposed to serve the primary point of purpose. The proposed access tracks are more in the nature of 'private ways' than roads and come within the scope of Class 21 of the 3rd Schedule to the P&D Regs 2001, as amended.
- The National Planning Framework, Regional Spatial and Economic Strategy and the County Development Plan have been subject to SEA – it is within this policy context that the project is being developed.

National Grid/Cabling Routes and Project Splitting

- A grid connection can only be applied for once planning consent has been granted for the generation station. The proposed grid route is not required to be included as part of an application for a solar farm as it can be dealt with under a Section 182 application. A separate planning application will be made for the grid connection.
- The transmission infrastructure proposed does not require overhead powerlines and instead will tap into the existing line, therefore it does not fall under the 'private' SID development class. Therefore, no EIA requirement is triggered by reason of being a 'private' SID. Therefore, project splitting should not be considered as no element of the proposal will require EIA.
- In terms of SID, neither the solar farm, nor its transmission infrastructure is 'private' SID under Section 37E of the Act and so no project splitting arises.

Landscape

- Existing and proposed vegetation/trees will be regularly maintained over the 35 year duration of the proposed development.

- No significant effects on amenity and tourism will be experienced as a result of the development. LVA states minor adverse or low visual effects.
- The submitted LVA and FI response considered the potential landscape and visual effects on the Hill of Tara which is located 11.1km to the northeast of the subject site. The assessment concluded there would be No Change upon the Hill of Tara due to intervening distance and vegetation.
- The LVA demonstrates that the proposal does not conflict with the development plan or relevant policies. As per the LEMP (included within the LVA) where required mitigation measures such as infilling of hedgerows, proposed hedgerows, trees and landscape berms within planting have been proposed alongside additional setbacks of the solar arrays in certain locations.
- Taking account of the medium sensitivity of the landscape the proposal would result in a Moderate adverse landscape effect experienced locally and a Minor adverse effect for LCA6 and LCA12 (as per LCA of CDP) as a whole. The landscape effect will reduce to minor adverse locally by c. year 5 as the proposed mitigation planting matures.

Residential Amenity

- Effects on residential visual amenity identified in the LVA are not considered to reach a threshold by which a Residential Visual Amenity Assessment (RVAA) would be required. The LVA assesses the visual effects at Year 0 and Year 5 of the 35-year operational period of the proposal. By Year 5 the visual effects range from Minor Adverse to No change.

Cumulative Impacts:

- A minor adverse cumulative landscape effect would result in combination with the approved development planning reference RA170766.
- Potential views of the proposal are largely confined to local receptors within around c.1km. A 'no change' cumulative visual effect was assessed with approved development MCC Ref. 21546 and approved development MCC Ref. RA170766 due to the contained nature of the proposed site.

Loss of agricultural lands:

- The proposal will result in ground disturbance of 4.02% of the application site and the solar arrays which are temporary structures are piled into the ground which involves minimal ground disturbance and does not necessitate concrete foundations. It will result in a net gain in ecological enhancement. Upon decommissioning land can revert back to open pasture. The site can be used for agricultural purposes throughout lifetime of solar farm.

Acoustics

- The simulated noise model was created using source noise levels from a manufacturer of plant similar to the type expected to be used (see Appendix 6B of Technical Appendix 6). This data is not modelled but actual onsite testing of the equipment that will be used on site and is a standard way to assess developments which haven't been built yet.

Ecology

- The conclusions of the cumulative assessment of the EclA stands. The implementation of Biodiversity Management Plans (BMPs) at constructed solar farms provides suitable habitat and management regime to enhance the solar farm's ecological value.
- There will be negligible effects upon watercourses as measures have been included in the design of the solar farm to prevent pollution events.
- No cumulative impacts with other developments are expected.
- The NIS demonstrates that regardless of the number of solar panels to be erected the development will not adversely affect the integrity of any European site.
- Kingfishers, a qualifying interest of the River Boyne and River Blackwater SPA which is c. 7.2km from the site, will not be impacted as a result of noise.
- Specific mitigation has been included in the NIS to limit any potential significant impacts upon qualifying interests.
- The impact of solar farms on farmland birds using the site has been assessed in the Ecological Impact Assessment. These habitats will be maintained.

- Given the solar panels are raised off the ground this will not result in any significant loss of habitat for small mammals. Mammal gates will be installed to allow the free movement of animals.
- There is no evidence to suggest solar farms fry birds in Ireland. There is evidence that solar farms have the potential to support wildlife and increase biodiversity.
- It is considered that with the recommendations of the BMP, habitats for invertebrates will be generally improved.
- Chemical cleaning agents are not recommended by manufacturers in cleaning of solar panels, instead only purified water should be used. Therefore, the cleaning process will not lead to a pollution risk to rivers or groundwater.

Flooding

- The results of the hydrological and hydraulic modelling assessments show that low lying areas of land could be at risk of flooding – Flood Zone B and C. Any water compatible development has been located mostly in Zone C. All infrastructure classed as ‘Highly Vulnerable development’ is located in Flood Zone C.
- A 6m buffer has been left free of development from all Arterial Drainage Scheme watercourses so the OPW can access and maintain them.
- Field 7 which was identified for surface water flooding occurrences (pluvial flooding) has been avoided from development.
- The Flood Risk and Drainage Impact Assessment have demonstrated that the proposed development will not increase flood risk.

Transport and Traffic

- L2210 Local Road – the submitted Construction Traffic Management Plan (CTMP) concluded that while increased volumes of traffic will be generated by the proposal during the construction period, overall these were considered to be quite low. The report determined that during the anticipated 12 month construction period, a total of 1,556 HGV deliveries are anticipated, with up to

20 daily HGV deliveries during peak construction period. Current daily volumes on the road according to the ATC survey are 600 vehicles.

- The Council have required pre and post construction surveys of the public road 200m either side of each access point as a condition of any permission and also a cash deposit of €50,000.

Benefits to the Community

- Numerous benefits to the community expected including – diversified source of revenue, multi-functional land use, employment, indigenous renewable energy resource, financial contribution to council, low intensity agricultural use, biodiversity enhancement measures, use of a finite resource for panel materials.

Other issues

- Deep Bore Geothermal Energy: this is relatively untested in Ireland and would require significant research and identification of suitable sites. Without large-scale utility type wind and solar farms Ireland will not meet its renewable energy targets.
- Privacy: 43 no. camera will be positioned along the periphery of the site and will be angled towards the site and will not be directed towards any neighbouring properties. A condition requiring the cameras to be fixed in place facing into the site should be attached.
- Property Devaluation: There is no evidence to prove that solar farms decrease the value of property in that particular area.
- Dispatchability/capacity factors: this is true for all renewable energy technologies; battery storage will assist with renewable generation. A well-established energy storage system is necessary. The production of intermittent renewables such as wind and solar are monitored and intermixed so as to utilise the available energy from both sources at a given time. Technological improvements mean modern panels have a higher efficiency rate than earlier panels.
- Production of solar panels: proposed panels are single crystal silicon from sand; these panels do not include cadmium telluride, copper indium selenide,

cadmium gallium (di)selenide, copper indium gallium (di)selenide or hexafluoroethane. Once constructed panel contents are held in an insoluble solid matrix, which is not prone to degradation or leaching. Solar modules are governed by the Waste Electrical and Electronic Equipment (WEEE) Directive. Solar farms do not produce harmful biproducts.

- Electromagnetic field: solar farms generate low levels of electromagnetic fields – there is no evidence that it is harmful to human health, according to the WHO. There is no evidence to suggest that run-off from solar panels poses a threat to groundwater.
- Guidelines for solar energy: National, regional and local planning policy supports the development of renewable energy technology.
- Lack of public consultation: there is no obligation for the applicant to carry out community consultation for a non-EIA project however a leaflet drop was undertaken for residences within 0.75km; all telephone and email queries were followed up, where necessary.
- Unauthorised development: The Board can have regard to unauthorised development and refuse permission because of it, but only in circumstances where the applicant for planning permission has itself carried out the unauthorised development. The current applicant is not responsible for the development carried out under Reg ref. RA140702.

6.3. Planning Authority Response

6.3.1. A response to the third-party appeals from the Council dated 14th March 2022 was received by the Board. The response can be summarised as follows:

- The planning authority are satisfied that all matters outlined in the submissions received were considered in the course of its assessment of the planning application as detailed in the Planning Officer Report dated 14th July 2021 and Further Information Planner's Report dated 12th January 2022.
- The planning authority respectively request that the Board uphold the decision to grant permission for said development.

6.4. Observations

6.4.1. 4 no. observations were received from 1. Charles d'Adhemar, 2 .Derek Teehan, 3. John Melia, and 4. Jason Browne. The issues raised by the observers are similar to those concerned in the grounds of appeal and can be summarised as follows:

- Fully support the development of renewable energy however the development of same should take place in appropriate settings such as rooftops or industrial/brownfield lands.
- The visual impact of the development on the northern portion of the Moynalvey lands has not been adequately addressed. This land will be directly visible from residential properties in the area.
- Risk of glint and glare to road users of the L2210.
- Contrary to what is stated in the applicant's response to further information (page 15, Section 2.4) regarding viewpoints 3 & 4, there is little in the way of a mature treeline to obstruct this view and certain fields are elevated toward private residential properties.
- Paragraph 7.136 of the Glint and Glare assessment is inaccurate – the vegetation present is not sufficient to screen all views to Receptor 37.
- No Data Privacy Impact Assessment has been carried out in relation to the proposed CCTV cameras. Privacy concerns in relation to the 3.5m high galvanised steel poles and cameras located so close to residential properties.
- The road surface on the R156 is also in a very poor condition from Moynalvey school to both the proposed entrance and turnoff to L2210.
- Soil or tree berms should be provided to protect houses within close proximity to the development site and mitigate any visual impacts.
- Specific concerns in relation to localised flooding that may be caused by surface water runoff. Drainage ditches surrounding western area 2 that regularly flood will be put under even more pressure.
- Possible impacts to front boundaries of properties along the L2210 as a result of proposed removal of hedgerow to accommodate new vehicle access splays.

- Concerns in relation to nighttime noise from substations and transformer units.
- Additional information provided by the applicant in relation to the impact on birds references the RSPB which is a UK body and therefore does not apply in Ireland. Account has not been taken of the impact on local birds or the fact that buzzards and pheasants frequent the proposed site.
- No impact assessment has been carried out regarding the impact of the proposed solar farm on bee hives in the area. Pollinator friendly plants should be incorporated into the scheme's landscaping. Concerns regarding use of toxic chemicals for cleaning agents and weed control measures.

7.0 Assessment

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

- Principle of the Development
- Landscape and Visual Impact
- Requirement for EIA and SEA
- Access and Traffic
- Archaeology and Cultural Heritage
- Ecological Impact
- Flooding
- Other Matters
 - Health and Safety
 - Noise
 - Privacy
 - Consideration of Alternative Technologies and Proposed MW Output
 - Validity of Application

- Landowner Consent
- Unauthorised Development
- Grid Connection
- Duration of Permission

7.2. An Appropriate Assessment is also required and is detailed under Section 8.0 of this report.

7.3. Principle of Development

- 7.3.1. The grounds of appeal argue that in the absence of national guidance on solar developments that the proposed development is premature. In addition, the appellants and observers to the appeal state that it is irresponsible to take over prime agricultural land for the proposed utility grade solar panels.
- 7.3.2. In considering the concerns raised in the appeal I note that renewable energy development is supported in principle at national, regional and local policy levels, with collective support across government sectors for a move to a low carbon future and an acknowledgement of the need to encourage the use of renewable resources to reduce greenhouse gas emissions and to meet renewable energy targets set at a European Level. It is also an action of the NPF under National Policy Objective no. 55 to *'promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050'*.
- 7.3.3. Notwithstanding the general acceptability of solar power as a form of energy generation, I note that at a more strategic level, the land-use policy and spatial framework is poorly developed, and there is no guidance on the type of land or landscape which would be most appropriate, however at a local level the Meath County Development Plan 2021-2027 does support renewable energy and provides guidance and support by way of the policies adopted in the plan which seek to ensure that solar generation is in accordance with the proper planning and sustainable development of the area. Section 6.15.3.1 of the current development plan states that *'Large scale solar farms have been positively considered on suitable sites within the County in the recent past. As of May 2019, twenty solar photovoltaic farms were granted planning permission across the County'*. Policies INF POL 34,

35, 36, DM POL 27 INF and objective OBJ 39 (listed under Section 5.2 above) are relevant and support the development of renewable sources of energy. Objective INF OBJ 39 in particular supports the development and exploitation of renewable energy sources such as solar where it does not have a negative environmental impact. In my opinion, these objectives clearly support the principle of solar farm development in rural areas.

- 7.3.4. The application site is located on agricultural lands that are outside any designated settlement. The site is defined under zoning category 'RA Rural Areas', the primary objective of which is to protect and promote the value and future sustainability of rural areas. Among a list of permitted uses are sustainable energy installations and utility structures. At decommissioning stage, all solar panels, cabling, structures etc, will be removed and the foundation of any structures will be top-soiled over. I acknowledge that the proposed solar farm would have an impact on the agricultural productivity of the site for the lifetime of the proposed development, however any such impacts would be temporary and the proposed development would not result in the permanent loss of agricultural land. I also note that the site will still be capable of facilitating lesser intensive agricultural uses (e.g., sheep grazing) which can take place alongside the solar farm use.

Conclusion

- 7.3.5. Notwithstanding the fact that there is no specific national guidance in relation to the location of solar energy facilities, I note that there is policy support for this type of development at national, regional and local policy levels and I am satisfied that the proposed development, including the technologies to be employed would be suitable at the proposed location and are acceptable in principle.

7.4. Landscape and Visual Impact

- 7.4.1. The grounds of appeal argue that the proposed development amounts to destruction of agricultural lands and is contrary to the European Landscape Convention. Several of the appellants also state that they consider that the proposal will materially contravene the development plan and that they have major concerns regarding the visual impact of solar panel developments on nationally and internationally important designated heritage areas. They also raise concerns in relation to the proposed development's cumulative impacts on landscape in combination with other

development which they consider has not been adequately addressed by the applicant.

Landscape Character Assessment

- 7.4.2. The appellants raise concerns regarding the proposed developments compliance with Objective LCOBJ2 and state that it is their belief that it materially contravenes the development plan. The Board should note that the objective referred to is in fact included in the previous Meath County Development Plan 2013-2019 which stated that all developments should be assessed having regard to the recommendations contained in the Meath Landscape Character Assessment 2007. The current plan (2021-2027) contains a similar objective HER OBJ 49 which states it is an objective of the Council “to ensure that the management of development will have regard to the value of the landscape, its character, importance, sensitivity and capacity to absorb change as outlined in Appendix 5 Meath Landscape Character Assessment and its recommendations”. The LCA which accompanies the current operative development plan is the same as that referred to by the appellants (published 2007).
- 7.4.3. While I note that a key objective of the National Landscape Strategy 2015-2025 is to develop a National Landscape Character Assessment and to publish statutory guidelines on local Landscape Character Assessments, for the purposes of this assessment at the current time the Meath Landscape Character Assessment is the appropriate document to consider.
- 7.4.4. The proposed development is to be located on three distinct areas of land consisting of the Western Area (Site Area 1), the Central Area (Site Area 2) and the Eastern Area (Site Area 3) with a total area of c. 108.68ha. Site Area 1 comprises fields numbered 1 to 6 with the area largely flat with slight undulations and ranges from c. 71m-77m AOD. Site Area 2 consists of the two central areas which are separated by the L2210 local road and contain fields no. 7 to 14 with the topography ranging from c. 76m-103m AOD. Site Area 3 is the easterly most site and contains fields no. 15 to 17 and ranges from c. 83 to 104m AOD. Fields are typically medium in scale and are well enclosed by hedgerows. Views within the site are mainly contained due the existence of mature treelines and hedgerows along field boundaries.
- 7.4.5. The application is accompanied by a Landscape and Visual Appraisal (LVA) submitted as Technical Appendix 1 of the application. An initial study area of 5km

was identified for the LVA, however during fieldwork, the subject site was found to be largely contained by localised undulations in landform and mature vegetated field boundaries and therefore the study area was reduced to a focused 2km radius. I consider this more focused study appropriate given the stated reasons above.

- 7.4.6. Zone of Theoretical Visibility (ZTV) maps were prepared, which determine the potential extent of the proposed development's visibility at spot heights of 3.2m (proposed panel heights) using a worst case scenario with no account made for screening effects across the study area (see Appendix 1A). The ZTV maps indicate that the potential for visibility across the larger 5km study area is reduced with coverage largely concentrated within the entirety of the 2km study radius.
- 7.4.7. 9 no. Viewpoints (VP) are used to assess visual effects (see Table 1-3 of LVA) with the viewpoints all in locations which can be accessed by the public. Their locations are illustrated on maps within Appendix 1A and the extent of the proposed development within each photos view and whether the development will be visible or not (Figures 1.4 to 1.12, Appendix 1A). Photomontages illustrating a Year 0 view with initial planting and a Year 5 view with more established planting for four of these viewpoints (VP 2, 4, 5 and 6) are also presented in Appendix 1A. During field work it was identified that potential adverse visual effects on residential views were unlikely to be experienced beyond the closest properties i.e. within c.1km of the proposed works. The LVA therefore states that the viewpoints identified as set out in Table 1-3 are also representative of views experienced by residential receptors within the focused 2km study area.
- 7.4.8. A Landscape and Ecology Management Plan (LEMP - Drawings No.s 72B and 73B) has also been included with the application and this is closely associated with the LVA and shows the landscape mitigation measures incorporated into the overall design scheme.

Visibility of Proposed Development and Potential Receptors and Effects

- 7.4.9. The LVA considers that potential visibility will be limited to those receptors within the immediate area. Based on information submitted and following my site visit I agree that potential visibility will be limited to those identified receptors in the immediate area. Those affected include residents, road users and surrounding agricultural land users in the immediate area. The views for road users and farm workers are

generally transient and limited. Affected residences will experience filtered views and in some instances new views of a solar farm. VP 3 looking southeast will experience some partial views within fields 16 and 17, however I note that mitigation is included in the LEMP which proposes a 2m berm with screen planting along the western perimeter of this area. In relation to other residential properties nearby, VPs 5, 6 and 7 (taken from R156 and L62131) will also have partial views of fields 15,16 and 17. Having examined the LVA I would agree with the view of certain appellants and observers in that a more extensive range of viewpoints would have been beneficial as part of the assessment, however having visited the site and examined the views from the areas in the vicinity of those residential properties that may possibly be affected by the solar farm in the future, I am satisfied that with the inclusion of appropriate landscape mitigation, which would include berms and planting, any adverse impacts on visual amenity can be avoided. I do acknowledge that notwithstanding the proposed landscaping certain residents will be exposed to views of elements of the solar farm, these individual properties are further considered under the assessment for glint and glare in Section 7.4.16 below. However, for the purposes of assessing visual effects, overall I would agree with the LVA that the potential effects upon assessed receptors range from 'No Change' to 'Moderate/Minor Adverse', reducing to 'No Change' to 'Minor Adverse' as mitigation planting becomes established by operational Year 5.

Landscape Character

7.4.10. According to the Meath County Development Plan 2021-2027 the entirety of Site Area 1, and parts of Site Areas 2 and 3 are located within the LCA 6 – Central Lowlands. This LCA is defined as having 'moderate sensitivity' to development and I note that the site currently benefits from significant and robust landscaping hedgerows with natural vegetation and treelines along its perimeter. The northern parts of Site Areas 2 and 3 are located within LCA 12 – Tara Skryne Hills which has an 'Exceptional' landscape value and a 'High' landscape sensitivity. This LCA is also of national/international importance and has sufficient landscape heritage merit to warrant its promotion as an international attraction and possible designation by UNESCO in the future. It should be noted however that the application site is distant from the key characteristics relevant to this area and the northern occurrence of LCA 12 which include Skryne Hill and the Hill of Tara which are located over c.13km and

11km respectively to the northwest of the application site. While I acknowledge the appellants concerns in relation to potential impacts on the surrounding historical landscapes, I note that there will be no views of the proposed development from the Hill of Tara (Map 8.6 – Views and Prospects, View reference no. 44 of the operative Development Plan) due to the topography of the Tara Skyrne Hills to the east of the site. To reinforce this point the applicant submitted an additional Viewpoint no. 10 in response to the Council’s further information request (see Appendix I of FI). The assessment of this viewpoint concluded that there will be no change to views from the Hill of Tara as a result of the proposed development and due to the intervening distance and vegetation this viewpoint of national significance will be fully screened. Having examined the information presented I am satisfied that this historical site will not be impacted by the proposal and also that there are no other views or prospects as per Map 8.6 of the operative CDP which would be impacted by the proposed development.

Cumulative Impacts

- 7.4.11. In order to identify any possible cumulative landscape effects, the applicant carried out a review of the Meath County Council planning search system for any existing, approved or proposed solar farm developments or similar developments within the 5km study area, as of 18th March 2022. The results showed four developments which consisted of infilling development (MCC ref. RA140702 within application site – Field 16), nearby land reclamation development, amendments to a granted mast application and one other solar farm. The permitted solar farm (MCC. Ref. RA170766) which is a much smaller site at 23.6ha is located c. 1.9km to the south of the subject appeal site (Site Area 3). However, taking account of the content nature of the application site and the intervening distance it is considered unlikely that the proposed development will be seen in either combined, successive or sequential views with the approved solar development.
- 7.4.12. The neighbouring approved Clonymeth solar farm site referred to under Section 4 of this report (ABP Ref. 311760-21) was not considered as part of the original cumulative assessment. This issue was flagged by the planning authority and further information was requested. The applicant in response submitted a focused Cumulative Assessment (Appendix H of FI submission) which examined any possible cumulative impact with MCC Ref. 21546 (ABP Ref. 311760-21). This

development included a solar PV farm with an overall site area of c. 91.9ha located immediately adjacent to the current site nestled in between current Site Areas 1 and 2. This application which was subsequently appealed was approved by the Board in May 2022 (ABP. Ref. 311760-21). The cumulative assessment considers that the increase in solar farm development area would result in an increase in the physical extent of solar farm development within southern parts of LCA 6 - Central Lowlands and northwestern parts of LCA 12 – Tara Skryne Hills, however, taking account of the contained nature of the application site cumulative landscape character impacts are not expected.

7.4.13. Cumulative visual effects are also not anticipated due to the contained nature of both sites and the existing and proposed additional screening present along the periphery of the sites. In addition, it is determined that potential for cumulative effects on views would be hindered by localised variations in the topography and screening by natural built elements across local landscape. This is particularly evident along the L2210 in views looking north and northwest over the proposed development toward the permitted Clonmeath Solar Farm. Views are also limited by the extent of intervening vegetation over the relatively low-lying land from the R158 northeast over the proposed development and onward toward the proposed adjoining Clonmeath site. As such the cumulative assessment concludes that the magnitude of visual change will be 'none' and will result in a 'no change' cumulative visual effect.

7.4.14. In respect of the subject appeal, I am satisfied that the site is relatively flat, with the majority of the land parcels set back from any nearby public roads and that it is well contained by mature hedgerows, and would, if permitted, be subject to landscape mitigation, helping to ensure the satisfactory visual containment of the proposed development, over time. Mitigation measures are set out in the LVA and include for structures to be off set from the nearest existing hedgerows by 5m, from arterial drainage schemes by 6m and field drains by 2m; hedgerows will be maintained and augmented, except for a break in hedgerows to facilitate field access. I note that compensatory mitigation and infill planting will be introduced where required along the boundaries of Fields 1, 7, 8, 9, 11, 12, 13, 14, 16 and 17. In addition a 2m high berm with screen planting will be introduced along the northeastern boundary of Field 16 and the northwestern boundary of Field 17 thus limiting inward views experienced by residential receptors and road users of the Moynalvey/L6215 and the

L2210. All new hedgerow infill planting will be allowed to mature to approximately 3 – 4m in height and ecological enhancement measures will also form part of the landscape including the introduction of species rich grassland, bird and bat boxes, hibernaculum and insect hotels. The locations of these features can be seen on the LEMP drawings nos. 72B and 73B.

7.4.15. As a related issue to visual impact, I note the applicant states in their submitted LVA that there will be no lighting on site except for emergency situations and upon the substation buildings which will only be turned on when required for servicing. No lighting on site will result in obtrusive light (skyglow, glare and light trespass) and therefore no light pollution to nearby houses would arise.

Glint and Glare

7.4.16. A Glint and Glare Assessment, prepared by Neo Environmental, is attached as Appendix 7 to the application. This assessment considers the potential impacts on ground-based receptors such as roads and residential dwellings as well as aviation assets.

7.4.17. A 1km survey area around the application site was used, whilst a 30km study area is chosen for aviation receptors. Results for panel angles of 15 and 30 degrees were considered. Within the study area 128 residential receptors and 52 road receptors were considered (see Figure 7.1 of Appendix 7A of assessment). 34 residential and 15 road-based receptors were dismissed as they were located within the normal reflection zones. Seven aerodromes are located within the study area however only Ballyboy Airfield, Trim Airfield and Weston Airport required detailed assessments due to their size and orientation in relation to the proposed development.

7.4.18. Solar reflections were identified as possible at 94 of the 128 residential receptors assessed within the 1km study area. The initial bald earth scenario identified potential impacts as high as 57 receptors including two residential areas, however upon reviewing the actual visibility of the receptors (see Appendix 7H Visibility Assessment Evidence), glint and glare impacts remained high at only 4 receptors (nos. 30, 32, 83 and 84). Once mitigation measures are in place the impacts are expected to be reduced to none, at all receptors.

7.4.19. Solar reflections were identified as possible at 33 of the 37 road receptors assessed within the 1km study area. However again upon reviewing the actual visibility of the

receptors, glint and glare reduced to none, at all receptor points. No impact was found at all on any runways or the air traffic control towers (ATCTs) assessed at the 3 aforementioned airfields/airport.

- 7.4.20. Mitigation measures recommended within the report included the planting of a berm and hedgerow along the eastern boundary of Field16 and the infill planting within hedgerows (as shown on Figure 1.13a/b of the report), with heights of existing and enhanced hedgerows to be maintained at 3-4m. These aforementioned measures will screen views for all residential and road-based receptors therefore reducing their impacts to none.

Conclusion

- 7.4.21. I consider the LVA and photomontages submitted with the application are an accurate reflection of the impact that the proposed development would have, and are sufficiently detailed. I acknowledge the concerns raised in the appeal regarding the visual and landscape impact effects of the proposed development individually and cumulatively and note the separation distance of solar panels from residential properties and the positioning of any solar arrays well set back from public roads (c. 70m to the closest point of public road from Fields 1 and 12).
- 7.4.22. The Glint and Glare Assessment concludes that there will be no glint and glare impact on residential or road receptors and that there will be no impact at all on runways and ATCTs of any airfields/airports. No impacts on any railway is expected. Mitigation measures are required to combat glint and glare impacts on 4 no. residential receptors, with compensatory native mitigation hedgerow and infill planting to be introduced in other areas which will be maintained at a height of 3-4m. I am satisfied that the issue of glint and glare on aviation and ground receptors (roads and residential) is satisfactorily addressed, and provided mitigation is implemented I consider the proposed development is acceptable in this regard.
- 7.4.23. In my opinion, the relatively flat landscape, the limited height of the proposed solar panels and the associated substations and power stations together with the buffers from residential properties and landscaping proposals would ensure that the proposed solar farm would not have an undue adverse impact on the visual amenity of the area.

7.5. Requirement for EIA and SEA

EIA

7.5.1. As noted under Section 5.4 above, solar farms are not listed as a class of development for the purposes of EIA within the Planning and Development Regulations, 2001 (as amended). Notwithstanding this, several of the appellants consider that the full project, including grid connection, may warrant EIA and that by splitting the project into two parts the applicant seeks to avoid the need for EIA. The appellants also consider that elements of the proposal could fall under other classes of development listed in Part 1 or Part 2 of Schedule 5. Reference is made to Class 10: Infrastructure projects (dd) “all private roads which would exceed 2000 metres in length”. As the proposed solar farm includes private roads with a total length of c. 7km the appellants argue that EIA is required under this Class. I recognise that this issue of the definition of “private roads” has arisen before with other solar farm developments. The definition of ‘road’ is that set out in the Road Act, 1992:

(a) any street, lane, footpath, square, court, alley or passage,

(b) any bridge, viaduct, underpass, subway, tunnel, overpass, overbridge, flyover, carriageway (whether single or multiple), pavement or footway,

(c) any weighbridge or other facility for the weighing or inspection of vehicles, toll plaza or other facility for the collection of tolls, service area, emergency telephone, first aid post, culvert, arch, gully, railing, fence, wall, barrier, guardrail, margin, kerb, lay-by, hardshoulder, island, pedestrian refuge, median, central reserve, channelliser, roundabout, gantry, pole, ramp, bollard, pipe, wire, cable, sign, signal or lighting forming part of the road, and

(d) any other structure or thing forming part of the road and—

(i) necessary for the safety, convenience or amenity of road users or for the construction, maintenance, operation or management of the road or for the protection of the environment, or

(ii) prescribed by the Minister.

7.5.2. The applicant proposes to construct upgraded and new access tracks to a width of approximately c. 3.5m, with construction depths of c. 0.4m. Drawing no. 0631 illustrates the tracks comprising of a subgrade, base/capping layer and running

surface. In their appeal response the applicant contends that the access/maintenance tracks that are proposed as part of the development are not private roads and do not have the characteristics of a road as ordinarily understood. The access/maintenance tracks are to be located on private land and are proposed to serve the primary point of purpose which is to facilitate the solar farm development.

- 7.5.3. While I acknowledge that the Board may wish to consider that the proposed access tracks over a total distance of 7km fall under Class 10 and therefore request an EIAR from the applicant, in my opinion and in view of the precedent set by other solar farm cases that included access tracks in excess of 2km (ABP 311760-21), I consider that the proposed access tracks are materially different from a 'road' as defined under the Roads Act, 1993. Having regard to the above, I am satisfied that the proposed solar farm is not of a class that requires EIAR or screening for EIAR.

SEA

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

2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011).

7.5.5. In addition to the above, I note that the operative CDP has been subject to SEA to predict and evaluate the likely environmental effects of implementing the plan, including policy in relation to future renewable development. In addition, other relevant higher-level plans, such as the National Planning Framework and the Regional Spatial and Economic Strategy have also been subject to SEA and support renewable energy development.

7.6. Access and Traffic

7.6.1. Concerns have been raised by several of the appellants and observers in relation to the volumes of traffic that the proposal will generate and the nature of the existing road infrastructure which they claim is incapable of dealing with additional demand. In particular the impact of the proposal on the L2210 local road is raised as a specific concern. In addition, I note that the planning authority requested the applicant to submit a revised site layout demonstrating unobstructed sightlines from Site Access 2 and Site Access 3 onto the L2210 local road as part of their further information request.

7.6.2. A Construction Traffic Management Plan was submitted as part of the application (Technical Appendix 5) and describes the existing road network in the vicinity and the potential traffic and transportation impacts on same. Given the dispersed nature of the site locations, the sites are proposed to be accessed via four separate access points, one off Basketstown Road, two of the L2210 and one off the R156.

7.6.3. Haul routes are expected to exit the M3 at junction 6 (Dunshaughlin) onto the R125 and travel in a southwest direction for approximately 2.5km before taking the second exit at the roundabout on to the R154 and from here onto the R125 and following this the R156. Site Area 3 (Site Access Point 4) will be accessed from the R156, with construction traffic travelling on the R156 for a further 2km before taking an eventual turn right onto the L2210 to access Site Area 2 (Site Access Points 2 and 3). Site Area 1 (Site Access Point 1) will be accessed via the Basketstown Road, which will necessitate construction traffic to travel via the R156 through Summerhill and then onto the R158 before turning right onto the Basketstown Road (see Figure 5.1 of Appendix 5A for details).

- 7.6.4. In response to the planning authority's further information request an Automated Traffic Count (ATC) survey was undertaken on the L2210 where Site Access Points 2 and 3 are located. Based on the data the design speed was calculated at 75.6km/h and the desirable stopping distance is 160m, however at the discretion of the Council it was stated that this could be relaxed to 120m. An amended site layout plan with updated sightlines was submitted as further information. The Council's Roads Department noted no objection to the development provided compliance with listed conditions. In relation to the submitted ATC survey results I note the daily average usage of the L2210 is approximately 600 vehicles. The proposed development would add 20 HGV vehicles to this, therefore I consider it unlikely that any major impacts to this road will occur. I am satisfied that the use of the L2210 to access the proposed development is appropriate.
- 7.6.5. Site Area 3 (Site Access Point 4) is proposed to be accessed off a regional road (R156), which is identified as having a regionally important function / particularly important transport link which Map 9.2 of the operative CDP refers. I note policy RD Pol 39 of the operative CDP which seeks to protect those non-national roads of regional or local importance from unnecessary and excessive individual access/egress points, which would prejudice the carrying capacity and ultimately the function of the road. I note that no concerns were raised in this regard by the Planning Authority.
- 7.6.6. The submitted CTMP determined that during the anticipated 12-month construction period, a total of 1,556 HGV deliveries will be made to the application site and during the peak construction period it is anticipated that there will be an maximum of approx. 20 daily HGV deliveries across all the site areas. There is expected to be between 10-15 LGVs per annum during the operational phase. The number of HGVs required for the decommissioning period will be slightly higher than the construction phase. Section 5.96 of the CTMP contains mitigation measures which will ensure any possible impacts are minimised including those related to limiting traffic movements to certain times of the day.

Conclusion

- 7.6.7. The proposed solar farm development is in a rural location and the road network is typical of these areas. I do not consider there is any deficiency in the network that

would render it unsuitable to carry the additional load required during the construction phase. Additional traffic movements associated with the construction phase would be short-term in duration (12 months) and would not, in my view, lead to any undue congestion or hazard. I note Condition 24 of the planning authority's grant of permission required completion of a pre- and post-construction survey of the 200m stretch to either side of the proposed access points for each site area onto the public roads and lodgement of a cash deposit of €50,000 to secure the satisfactory completion of any required repairs. I consider a standard condition in this regard could be attached to any grant of permission that may issue. In conclusion, I do not consider that traffic and transport issues are a concern for the proposed solar farm development, and I am satisfied, taking account of the measures proposed and the use of appropriate conditions, that the issue of traffic can be adequately addressed.

7.7. Archaeology and Cultural Heritage

- 7.7.1. The grounds of appeal cite several concerns relating to the archaeological heritage of the area and the significance of the area considering the proximity of sites such as the Boyne Valley and the Hill of Tara, as well as the general location of the area within the very popular tourism region of Ireland's Ancient East.
- 7.7.2. Concerns received from third parties highlighting issues with the visual effects on cultural heritage have already been considered under Section 7.4 and therefore shall not be repeated under this section.
- 7.7.3. An Archaeology & Architectural Heritage Impact Assessment (AAHIA) has been submitted as part of the application (See Technical Appendix 3). Study zones of 5km and 2km were used to assess high-grade heritage assets such as World Heritage sites, National Monuments, Historical Gardens and Designated Landscapes, Protected Structures, Architectural Conservation Areas and sites within the record of Monuments and Places. No direct impacts upon known archaeological and heritage assets are anticipated and therefore the applicant stated that no specific mitigation measures for known sites were required.
- 7.7.4. The Development Applications Unit (DAU) of the Department of Housing, Local Government and Heritage made a submission on the proposed development and noted the large-scale extent of such a proposal within an area of high archaeological potential. It was also noted that two of the proposed sites are adjacent to an area

that contains significant archaeological sites and visible earthwork complexes subject to a separate proposed solar farm planning application (ABP 311760-21). An Archaeological Impact Assessment to include the results of a geophysical survey and test trenches was therefore requested which the planning authority included in their further information request. In response to this request the applicant submitted a geophysical survey, the full results of which were included in Appendix D of the further information response as an addendum to the original AAHIA. The report identified 5 probable and 3 possible archaeological features. In response to these findings the applicant has proposed to provide precast concrete feet (plinths) securing the panels in order to avoid any ground disturbance. This will allow for preservation and situ of any subsurface archaeological remains. An archaeologist will also monitor such works to ensure no physical impacts occur as part of the construction period. The DAU then made a further submission on this information and stated that it was noted that the geophysics report is at a draft stage and that the AAHIA was written in advance of the results of the geophysical survey. As such there is no detailed description of the impact of the proposed mitigation. The Department therefore recommended that a specific condition in relation to archaeological mitigation and predevelopment testing should be included as part any grant of permission.

Conclusion

7.7.5. Having regard to the information submitted with the application, the further information received, the reports of the planning authority and the comments of the DAU, subject to the attachment of conditions requiring the completion of the Archaeological Impact Assessment (incorporating the results of the geophysical survey) and appropriate archaeological mitigation and monitoring of the construction phase of the proposed development, I conclude that the proposed development will accord with the objectives set out in the operative development plan in relation to the conservation of items and areas of archaeological interest and would not have any undue adverse impact on the setting of an area of high archaeological potential.

7.8. Ecological Impact

7.8.1. Concerns regarding the potential negative impacts on biodiversity as a result of the proposed development have been raised in both the third party appeals and

observations received. An Ecological Impact Assessment (EclA) accompanies the application and includes the findings of a Habitat Survey. As part of the EclA a Biodiversity Management Plan (BMP) was produced which encompasses enhancement and compensatory measures to ensure the proposed solar farm will have a net beneficial effect for local wildlife (see Appendix 2D of EclA). A LEMP is also included with the application. A Natura Impact Statement (NIS) was submitted to the planning authority in response to the further information request. Impact on Natura 2000 sites is considered in Section 8.0 of this Inspector's Report.

- 7.8.2. A total of 16 habitat types were noted during the Fossitt habitat surveys which were undertaken in January and February 2021. The main habitat types recorded were improved agricultural grassland (Fossitt Code: GA1), arable (BC1) and treeline (WL1) all of which were considered to have low ecological value and following surveys it was considered that the proposed development was unlikely to have significant impacts on local wildlife.
- 7.8.3. The applicant's response to appeal notes that a number of solar farms have gone into planning since the production of the EclA however the conclusion of the cumulative assessment of the EclA remains the same, as despite the large size of developments in the area, solar farms have a relatively minor footprint due to the panels being mounted on piles and are designed to prevent biodiversity loss.
- 7.8.4. Potential impacts include habitat loss and fragmentation, disturbance to wildlife during construction and decommissioning, and surface water contamination. Three badger setts were identified within the application site during the site surveys, one subsidiary sett is located to the north of the application site, a second is located to the east of the site, with one outlier sett located in the central portion of the site. It is considered that the proposed development will have a negligible effect upon the local otter population as the habitats on site are suboptimal for otter. Specific mitigation measures in relation to both badgers and otter are included on pages 43 and 44 of the EclA. One measure to be implemented for both species will see the inclusion mammal gates within the proposed security fencing or incorporation of a gap of at least 10cm at the bottom to allow free movement of both species.
- 7.8.5. Although a small amount of hedgerow removal (15.8m to be removed and 187.8m to be trimmed back) is proposed as part of the development, this is not expected to

have any significant impact on bat species, given the abundance of similar foraging habitat in the vicinity. If any potential roost sites are to be impacted (mature trees) these will be assessed by a qualified bat specialist and appropriate measures implemented if necessary.

7.8.6. I note that several observers have concerns in relation to bird species in the area and the possible impact that the development may have on these, as well as possible direct loss or deterioration in their habitat. The EclA outlines mitigation specific to bird species and if breeding birds are identified within the site during breeding season species specific buffers will be implemented to protect nesting birds during construction. Also, preconstruction breeding bird surveys on any vegetation to be removed are also proposed. In addition, other measures within the supporting BMP including sowing species rich meadow, as well as installing bird boxes to enhance the areas attractiveness for bird species.

7.8.7. Where possible measures have also implemented as part of the design to prevent the proposed development affecting sensitive ecological features, these include:

- 5m buffer around hedgerows
- 6m buffer from Arterial Drainage Schemes
- 2m buffer from field drains
- Tree buffers dependant on height
- A 30m buffer around any badger setts
- 10m overhead line buffer (20m corridor)
- 7m gas pipeline buffer (14m corridor); and
- Avoidance of the 1 in 1000-year flood zone.

7.8.8. Furthermore, the applicant states that it has been concluded that there will be negligible effects upon watercourses as measures have been included in the design of the solar farm to prevent pollution events. Best practice pollution prevention measures will also be implemented prior to and throughout the construction phase to prevent contaminants entering the aquatic environment.

Conclusion

7.8.9. I concur with the findings of the EclA that with the implementation of mitigation measures, including further surveys prior to and during construction, there would be no significant effects on the ecology of the site or surrounding area arising from the proposed development.

7.9. Flooding

7.9.1. Concerns regarding increased risk of flooding have been raised in several of the appeals and observations received. The Moynalvey Solar group are particularly concerned that given the increased land cover, soil absorption rates will be affected during heavy rains and this will then lead to greater surface water runoff, which will result in increased flooding in the area and downstream.

7.9.2. A Flood Risk and Drainage Assessment was carried out for the proposed development and the results have been submitted in report format with the application. The Strategic Flood Risk Assessment (SFRA) and Preliminary Flood Risk Assessment (PFRA) interactive maps present within the subject site area identified it as being at risk of fluvial flooding events along the Dangan and Clonymeath rivers. As a result, a hydrological and hydraulic modeling assessment was undertaken to assess the risk of flooding from these water courses. The results of this assessment showed that low lying areas of land could be at risk of flooding during the 1 in 100 year (Flood Zone B) and 1 in 1000 year flood events (Flood Zone C) and flood maps have been provided.

7.9.3. The proposed solar farm development is not of a type that is specifically mentioned within any of the three land use vulnerability categories outlined in The Planning System and Flood Risk Management Guidelines (2009). However, for the purposes of the assessment the applicant has classed the access tracks, CCTV and fencing as 'compatible development'. All electrical infrastructure such as solar panels, power stations and substations are classed as 'essential infrastructure'. The 'water compatible infrastructure' has been located mostly within Flood Zone C. The access track and fencing cross some watercourses which are in flood zones, with some lengths of fence within Fields 1, 2, 3, 5 and 14 located within Flood Zones A and B. The applicant used a matrix of vulnerability versus flood zone (see Table 4-2 of report), the results of which deemed these uses appropriate. I note that all

infrastructure classed as 'highly vulnerable development' is located in Flood Zone C. This is considered appropriate.

- 7.9.4. I note that a 6-metre buffer is proposed along all Arterial Drainage Scheme (ADS) watercourses so as to allow the OPW to access and maintain them (the applicant has stated that the OPW had requested a minimum of 5 m). This is considered sufficient.
- 7.9.5. Flood risk due to pluvial sources was also assessed on site. The PFRA maps indicated a number of locations where surface water flooding was predicted, however on examination of topographical survey most locations were relatively minor where flooding was only possible up to approximately 0.2m. Where areas of high flood risk were identified these were excluded from the development area (e.g. area in Field 7). Specific concerns in relation to pluvial and fluvial flooding have been raised by local residents, in particular in the vicinity of Fields 7 and 8. As stated the southwestern corner of Field 7 has been excluded from development due to this concern. In addition, the proposed development also includes a drainage design with 8 soakaway channels. These are to be located on the downward slope near to the existing water courses which run through the application site. Any overland flow will then be captured in the SuDS device, prior to releasing into the natural surface water system. Site Area 2, which is the main area of concern raised in the observations received, has four soakaway channels proposed. Three of these are located within Fields 7 and 8, with two of these located along the area to the southeastern corner of Field 7 and the southwestern corner of Field 8. The proposed soakaways will have an overall combined length of approximately 668m, with a base width of 0.5m, a 0.5m design depth and a 0.15m freeboard. They will be filled with crushed rock with a void ratio of 20% and provide a total storage volume of approximately 33.4m³. This volume is greater than that of the calculated additional runoff which is to be generated as a result of the impermeable buildings on site (15.0m³) and also with additional volume provided to adequately mitigate increase flow rates in times of pluvial pressures. Surface water from these soakaway channels will be discharged to existing field drains and while I note the concerns raised by the observer in relation to this, I am satisfied that given the additional capacity of the proposed soakaways that no significant flooding of these existing drains should occur as a result of surface water overflow. I also note the response prepared by Meath County Council's

Environment Department, dated 13th July 2021 which raised no objection to the proposed development from a flooding perspective.

Conclusion

7.9.6. Having regard to the documentation submitted with the application, the fact that sensitive elements of the proposal are to be located within Flood Zone C only, that solar panels are constructed for external use and to withstand weather events, the proposed drainage design including eight soakaway channels and the limited depth of any anticipated flood extent including the results of the site specific Flood Risk and Drainage Impact Assessment, I am satisfied that the application site is an appropriate location for the proposed development and that proposed development will not give rise to unreasonable risk of flooding within the application site or to areas outside the application site.

7.10. **Other Matters**

Health and Safety

- 7.10.1. The appeal raises considerable concern regarding possible health and safety impacts, in particular, the use of toxic material in the solar panels and the impact of water run off on natural resources, including soil, aquatic life and human health.
- 7.10.2. I note the applicant's response to appeal which states that the solar panels do not include cadmium telluride, copper indium selenide, cadmium gallium (di)selenide, copper indium gallium (di)selenide and hexafluoroethane. The applicant states that the proposed solar panels are comprised of crystal silicon which is manufactured from sand and consequently there are no metals/contaminants within the panels which could run off and discharge to the underlying aquifer or surface water.
- 7.10.3. The submissions received by the Board also make the point that the proposed development may give rise to radiation/EMFs which would impact human health. Whereas EMF can be created by electricity infrastructure the inverter/transformer units that are part of this application are a minimum of c.160m from the nearest dwelling house and I am satisfied that there is no reasonable risk that electromagnetic impacts occur at that distance from relatively minor installations.
- 7.10.4. Having regard to the foregoing, I concur with the applicant's view that there is no clear evidence to support the claim that health and safety impacts would arise from a

Solar PV development of the nature proposed and I consider the development to be acceptable in this respect.

Noise

- 7.10.5. Several appellants have raised concerns regarding the noise studies carried out for the proposed solar farm, stating that they are understood to be executed through simulation with no actual baseline from solar sites.
- 7.10.6. A Noise Impact Assessment (NIA), prepared by Neo Environmental accompanies the application (see Technical Appendix 6), and includes a Noise Assessment Map and Manufactures Noise Data. A total of 36 noise sensitive receptors (all residential dwellings) were included in the assessment within a study area of 500m of the application site. Noise modelling was undertaken to predict noise levels and assess acoustic impact arising during the operational phase of the proposed development. No baseline monitoring was conducted due to the relatively low levels of noise produced from solar farms; however the effects were compared against a background noise level of 35dB (LA90), typical of a rural night-time setting with no wind. Having regard to the location of the site in a quiet rural area and separation from roads, I am satisfied with the baseline noise level of 35dB and methodologies used to assess noise impact. For the purpose of the NIA continuous operation at peak level is assumed for both daytime and nighttime hours as a worst-case scenario. Predicted impacts were calculated using source noise data from the manufacturer of the noise emitting equipment. SoundPlan noise modelling software was utilised to determine the noise impact from the proposed development. The main noise source associated would be from the 27 no. MV power stations, which enclose the inverters and transformer. The solar panels themselves do not generate noise. The proposal is predicted to have a negligible or low impact at all receptors and no mitigation is considered necessary. In addition to this the levels at each receptor are found to be below the night noise guideline value of 40dB set out in the WHO nighttime guidelines. This is the level recommended for the primary prevention of sub-clinical adverse health effects related to night noise in the population.
- 7.10.7. Noise would also arise at construction (e.g., from piling and laying of access tracks) and decommissioning stages. The predicted construction/decommissioning noise levels are not assessed in the NIA. Construction activities are outlined in the outline

CEMP and I acknowledge that the construction phase would result in minor additional noise, however I consider that this would not have a significant impact on residential amenities having regard to the limited construction period and distance from residential properties. I also accept there will be a negative impact during the construction period on those residential properties closest to the proposed entrances in particular, and the site in general arising from piling operations principally, however these will be short-term and localised and are not therefore considered to be significant.

- 7.10.8. Having regard to the submitted Noise Impact Assessment and the buffer between the proposed development and residential receptors, I do not consider that the proposed development would have any undue adverse noise impact on property in the vicinity.

Privacy

- 7.10.9. Concerns have been raised in both the appeals and observations received regarding the possible invasion of privacy that may result from the installation of CCTV along the site area peripheries.

- 7.10.10. A total of 43 no. CCTV cameras are proposed along the fence line around the periphery of the application site. The applicant's Appeal Response states that these CCTV cameras are proposed to be fixed and angled towards the application site to enable remote surveillance and include infrared cameras to allow for effective nighttime operation. No lighting is proposed as part of the development. The applicant is clear that cameras will not be directed towards any neighboring properties or the public road. On completion of construction works the site would be intermittently visited for maintenance purposes. Should the Board consider it necessary a condition requiring the cameras to be fixed in place facing into the site could be attached.

Consideration of Alternative Technologies and Proposed MW Output

- 7.10.11. The appellants also raise issue with the type of technology proposed, including concerns in relation to the viability of solar PV development at the subject site and the lack of consideration of alternative renewable technologies which may be more suitable to the site including deep bore geothermal. The applicant sought to

address these concerns in their response to the third-party grounds of appeal, received by the Board in March 2021.

7.10.12. In relation to the appellant's focus on alternative renewable energies, including geothermal deep bore, the applicant states that research undertaken on that type of renewable energy generation is generally untested within the Irish context and still requires significant research and identification/screening of potentially suitable sites and therefore it is not currently an option for the applicant to explore. In relation to tidal energy the applicant states that this type of energy technology is not a feasible alternative given that it is not at a viable commercial standard to provide clean energy at a large scale when compared with the well-developed solar and wind technology. I am satisfied with the applicant's response in this regard and note that it is a solar PV development which is currently under assessment and not any alternatives to same, therefore I am satisfied that this issue of alternatives need not be addressed in any further detail.

7.10.13. The applicant's response to the grounds of appeal also addresses dispatchability concerns and the limitations of solar energy generation. In my opinion the applicant has adequately addressed the concerns raised in the appeal in relation to the viability of the solar farm at this current location, in particular with regard to its latitude and the appropriate PV technologies to be used.

7.10.14. The applicant in their appeal response also clarifies what the expected MW output from the proposed development will be and details of grid capacity and battery storage. The applicant reiterates that under page 5, Section 1.4 of the submitted Planning Statement it was stated that the proposed life of the permission is to be 10 years, with the operational life of the development 35 years and an output of c. 70.6MW DC. In response to appellants concerns regarding the possibility that the finalised solar farm may differ from that of the apparent indicative plans submitted, the applicant acknowledges that solar technology is continually advancing and whilst various infrastructure components are described in the application, it is proposed that the most efficient infrastructural specifications available at the time of construction will be used. While these may vary slightly from the details described in the submitted plans this is not expected to result in a significant departure from the details specified. This is common in such developments, and I note that the planning authority have recognised this also and allowed for flexibility in possible output (see

Condition no.2 of planning authority decision to grant). If the Board are minded to grant permission, I would suggest that a similar condition should be attached to allow for the same degree of flexibility and efficiencies.

Validity of Application

7.10.15. I note the concerns in relation to the validity of the original application and its compliance with the Planning and Development Regulations 2001, as amended. Issues of validity as raised should be addressed at planning authority stage and therefore the Board has no jurisdiction to address these issues at this stage. While I note the discrepancies in relation to drawings and scales etc. I do not consider these matters impact on my ability to assess the proposed application and consider the information submitted adequate to allow a thorough assessment to be carried out.

Landowner Consent

7.10.16. I note that several of the appellants have raised concerns regarding the validation process at planning authority level and also the omission of the word 'limited' from the Landowner Consent Letters and the original site notice. In relation to the company name and the omission of the word 'limited' I do not believe that this was intentional, and the applicant has stated in their Appeal Response (dated March 2022) that it was a clerical error. The omission in my opinion has not misled or deprived anyone the opportunity to participate in the process and this is evidenced by the submissions received.

Unauthorised Development

7.10.17. I note the previously approved application for infilling of lands on part of the lands of the eastern most site (Site Area 3) at Moynalvey and the associated conditions in relation to same (MCC Ref. RA/140702). While enforcement of these conditions is not the responsibility of the Board and falls under the jurisdiction of the planning authority, I am conscious of the emphasis that was previously put on the requirement for screening along the periphery of this site. Given the proximity of the current subject site to existing residential properties to the east and west and the more elevated nature of this section of the overall solar site, I would consider it prudent to ensure that appropriate screening is included as part of the conditions on any grant of permission.

Grid Connection

7.10.18. The appeal states that the grid connection needs to be considered, citing O’Grianna & Ors v An Bord Pleanála. As the proposed solar farm is not subject to EIA, the reference to O’Grianna is not relevant in this instance. I note that the grid connection does not form part of the current planning application and is subject to a separate consent process.

Duration of Permission

7.10.19. The appeal queries the duration of permission. It is noted that a 10 year permission was not expressly sought. The applicant clarified in their Appeal Response that Section 1.4 of the submitted Planning Statement outlined that the applicant seeks a 10 year permission with an operational period of 35 years. Having regard to Section 41 of the Planning and Development Act 2000, as amended, the nature and extent of the development and the requirement to obtain separate consent(s) for grid connection, should the Board be minded to grant permission, it is considered reasonable to specify that the duration of permission as 10 years and an operational period of 35 years is appropriate.

8.0 Appropriate Assessment

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

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

- Screening the need for appropriate assessment;
- The Natura Impact Statement and associated documents; and
- Appropriate assessment of implications of the proposed development on the integrity of each European site.

Appropriate Assessment – Screening

8.2. Background on the Application

- 8.2.1. The applicant submitted an 'Appropriate Assessment Screening' report, prepared by Neo Environmental Ltd, dated 23rd March 2021, as part of the planning application. The applicant provided a description of the proposed development and identified European Sites within a possible zone of influence of the development. Associated reports were also submitted with the planning application such as an Outline Construction and Environmental Management Plan (CEMP) and an Ecological Impact Assessment (EclA).
- 8.2.2. The applicant's AA Screening Report concluded that no significant effects would occur for the qualifying habitats and species of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA and that the development would not lead to significant adverse impacts upon any Natura 2000 sites. In addition, the report states that no significant in-combination cumulative effects have been identified.
- 8.2.3. The planning authority were not satisfied with the Screening Report and the applicant submitted a Natura Impact Statement (NIS) in response to the planning authority's further information request, which was deemed necessary to provide the authority with sufficient information to fully assess the potential impacts of the proposal on designated sites. The NIS was also prepared by Neo Environmental Ltd. and is dated 21st October 2021. The NIS was not accompanied with a revised or updated AA Screening Report; therefore, my screening determination below is carried out *de-novo*.
- 8.2.4. Having reviewed the documents and submissions received from interested parties, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

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

- 8.3.1. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).
- 8.3.2. The proposed development is examined in relation to any possible interaction with European sites designated Special Areas of Conservation (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.

8.4. Brief Description of the Development

- 8.4.1. The applicant provides a brief description of the project under Section 2.4 of the AA Screening Report (and Sections 2.8 and 2.9 of the NIS) and elsewhere e.g. Section 2 of the Planning Report. A summary of the main elements of the proposed development is also outlined under Section 2 of this report.
- 8.4.2. The development site is described under Sections 2.5 to 2.9 of the AA Screening report. The development will be situated across 17 fields which are split between four distinct land parcels. Site Area 1 to the northwest, Site Area 2 (comprised of two adjacent land parcels, divided by the L2210 local road) and Site Area 3 to the southeast. Each of the site areas are generally well enclosed and consist of a mixture of pasture and arable lands. Fields are bound by a mixture of trees, mature hedgerows and post and wire fencing, with internal drainage ditches along many field boundaries. The main Fossitt habitats recorded as part of the submitted EclA include Improved Agricultural Grassland (GA1), Wet grassland (GS4), Treelines (WL2), Arable crops (BC1), Wet woodland (WN6) Buildings and Artificial Surfaces (BL3), Amenity Grassland (GA2), Dry Meadows and Grassy Verges (GS2), Spoil and Bare Ground (ED2), Immature woodland (WS2), Stone walls and Other Stonework (BL1), Hedgerow (WL1), Earth Banks (BL2), Scrub (WS1), Stream (FW2) and Drainage Ditches (FW4). Land in the vicinity is described as mainly agricultural in nature, with a number of quarries within the immediate vicinity and there are various residences and farmsteads located along the local roads.
- 8.4.3. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- Construction related - uncontrolled surface water/silt/ construction related pollution.
- Habitat loss/ fragmentation.
- Habitat disturbance /species disturbance (construction and / or operational).
- In-combination effects with other projects including the permitted nearby 91.9ha Clonmeath Solar Farm (ABP Ref. 311760-21) and the possible future 110kV substation development on adjoining site (ABP Ref. VC17.310076).

8.5. Submissions and Observations

- 8.5.1. No submissions were received from any prescribed bodies in relation to AA issues, however several members of the public raised concerns in both the 3rd party appeals and observations received on appeal regarding compliance with the Habitats Directive and possible impacts as a result of the development on qualifying interests downstream.

8.6. European Sites

- 8.6.1. The development site is not located in or immediately adjacent to a European site. The closest European sites are the River Boyne and River Blackwater SPA (Site Code: 004232) and the River Boyne and River Blackwater SAC (Site Code: 002299), both within c. 5.4km of the proposed development and c. 12.5km downstream of the project.
- 8.6.2. A summary of European Sites that occur within 15 km/within a possible zone of influence of the proposed development is presented in the table below. Where a possible connection between the development and a European site has been identified, these sites are examined in more detail.

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

European Site (code)	List of Qualifying interest /Special conservation Interest	Distance from proposed development (Km)	Connections (source, pathway receptor)	Considered further in screening Y/N
River Boyne and River Blackwater SAC [002299]	Alkaline fens [7230] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, <i>Salicion albae</i>) [91E0] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355]	c. 5.4km north	Yes – hydrological connection through drainage ditches on site and the Dangan and Cloneymeth Rivers c. 12.5km downstream from site.	Y
Rye Water Valley/Carton SAC [001398]	Petrifying springs with tufa formation (Cratoneurion) [7220] <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]	c. 11.2km south east.	No – no connection to site.	N - outside of any zone of influence of the development due to the lack of ecological connections to the specific habitat type and species for which the site is designated.
River Boyne and River Blackwater SPA [004232]	Kingfisher (<i>Alcedo atthis</i>) [A229]	c. 5.4km north.	Yes – hydrological connection through drainage ditches on site and the Dangan and Cloneymeth Rivers c. 12.5km downstream from site.	Y

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

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

The conservation objectives of the Natura 2000 sites are as follows:

- River Boyne and River Blackwater SAC – Conservation objectives are set out in the ‘Conservation Objectives Series River Boyne and River Blackwater SAC 002299’ documents published by the National Parks & Wildlife Service (NPWS). They are to maintain the favourable conservation condition of alkaline fens and otter, and to restore the favourable conservation condition of alluvial forests with ..., river lamprey, and salmon.
- River Boyne and River Blackwater SPA – The conservation objective is set out in the ‘Conservation objectives for River Boyne and River Blackwater SPA [004232]’ document published by the NPWS. It is ‘To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA’. The only qualifying interest listed in Kingfisher.

8.6.13. The possibility of significant effects on Rye Water Valley/Carton SAC listed in Table 8.1 has been excluded on the basis of objective information. No direct effects would occur through land-take fragmentation of habitats given the distance of the site from the SAC.

8.6.14. As illustrated in Table 8.1 above a hydrological connection exists between the site and both the River Boyne and River Blackwater SAC [002299] River Boyne and River Blackwater SPA [004232]. Field drains are present across the majority of the application site and these flow into the Clonmeath River and Dangan River. The Clonmeath River flows in a westerly direction alongside or in close proximity to the southern boundaries of each of the three site areas. The Dangan River runs from the northeast to southwest along the northern boundary of Site Area 1. These two water courses then converge into the Knightsbrook, which flows into the River Boyne approximately 12.5 km downstream of the application site.

8.6.15. Given that the applicant's initial AA screening report screened out the requirement for an NIS, it is in fact within the submitted subsequent NIS, on foot of the further information request from the planning authority that a thorough impact assessment is carried out. This is presented under Section 6 of the submitted NIS where potential impacts for ecological features associated with the two Natura 2000 designated sites associated with the construction, operation or decommissioning of a solar farm are outlined. This section states that contamination of surface and/or groundwaters is the main concern with those features (species) which are ecologically connected to the application site and/or mobile also at risk of impact through disturbance as well as loss of habitat through contamination of surface waters. Aquatic systems and the species/habitats which are dependent on these systems are sensitive to pollution/contamination of surface waters. Pollution it is stated can result from any of the following entering a surface water body or groundwater:

- Poisonous, noxious or polluting matter.
- Waste matter (including silt, cement, concrete oil, petroleum, chemicals solvents, sewage and other polluting matter).
- Other harmful activities detrimentally affecting the status of a water body.

8.6.16. The status of a waterbody can be affected not only by chemical pollution but also by activities directly or indirectly affecting ecology including changes in physiochemical parameters such as temperature and turbidity or physical modification to the hydrology of a water body. I concur with the potential effects as summarised in above.

8.6.17. An on-site electrical substation and cabling will be required to connect the solar farm to the electricity grid and will be the subject of a separate consent procedure. Potential impacts arising will be assessed as part of that application. I also note similar proposals for solar farms in the immediate vicinity, both planned and permitted, and while some of these are hydrologically connected downstream, the majority of these benefit from further dilution from additional tributaries. In addition, permitted solar farm developments in the vicinity (i.e. ABP Ref. 311760) are subject to appropriate surface water management conditions, where necessary.

8.7. **Mitigation Measures**

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

8.8. **Screening Determination**

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

Appropriate Assessment

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

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

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

8.10. The Natura Impact Statement (NIS)

- 8.10.1. A 'Natura Impact Statement' (NIS) prepared by NEO Environmental Ltd. dated 21st October 2021 was submitted in response to planning authority request for further information. This examines and assesses potential effects of the proposed development on both the River Boyne and River Blackwater SAC and SPA. It is a detailed document which provides information and appraises the potential that both the proposed solar farm and other relevant plans and projects in combination with this would have on the integrity of the relevant European sites in view of best scientific knowledge and the conservation objectives of the sites. The NIS was prepared in line with current best practice guidance and contains, inter alia, a description of the proposed development, the legislative background, detailed commentary on the two relevant European sites, an impact assessment for both sites, consideration of the in-combination effects, mitigation measures and an assessment of same and conclusion.
- 8.10.2. I note that Sections 6.33 to 6.37 of the NIS outline the 'Assessment of Likely Impacts affecting the River Boyne and River Blackwater SPA'. The applicant concludes that as suitable habitat for kingfisher is not present directly within the proposed development footprint then construction of the proposed solar farm will not lead to direct loss of habitat for this species and it is therefore considered that the proposed development will not result in any likely significant effects upon Kingfisher. As a consequence the proposed development will not result in significant adverse effects to the integrity of the River Boyne and River Blackwater SPA. Kingfisher territories typically cover at least 1km of river, and usually can extend over 3-5km depending on food availability, and while I acknowledge that the SPA's kingfisher will not be directly impacted as a result of land take from the development, I am cognisant that there is still uncertainty remaining regarding the possible impacts that the proposed development may have on water quality. The site is hydrologically linked to the SPA and kingfisher may be sensitive to indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, there may be indirect effects as a result of possible impact on food sources. I do not consider in this instance the applicant's summation on this can eliminate all reasonable doubt, in particular when I note that the SAC which has the same hydrological links has been screened in for likely significant effects as a result of impacts on water quality.

- 8.10.3. The applicant's NIS concluded that with the implementation of mitigation measures (as listed under Section 7) along with ongoing monitoring to ensure compliance, it is considered that proposed development will not have a significant effect upon any qualifying features, and therefore the integrity, of the Natura 2000 sites connected with the application site.
- 8.10.4. No issue specific to AA was raised by any prescribed bodies. The submitted third party appeals outline the appellants dissatisfaction with the quality of Appropriate Assessment under the EU Habitats Directive and states that the Board should examine the 'Natura Impact Assessment' in more detail. They state that the Board should also examine the issue of run-off in greater detail and possible impacts of pollution from chemical/metal escape to groundwater.
- 8.10.5. Having reviewed the documents, I am satisfied that the information submitted by the applicant allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the River Boyne and River Blackwater SAC and SPA.

8.11. Appropriate Assessment of Implications of the Proposed Development

- 8.11.1. The following is a summary of the objective scientific assessment of the implications of the project on the Qualifying Interest (QI) and Special Conservation Interest (SCI) of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed, and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. For the purpose of clarity, the following sites are subject to Appropriate Assessment:

- River Boyne and River Blackwater SAC (Site Code 002299)
- River Boyne and River Blackwater SPA (Site Code 004232)

Given the nature of the proposed development, and the nature, type, and QIs/SCIs of the European sites potentially affected, similar considerations apply to both.

- 8.11.2. A description of the sites and their QI/SCI, including any relevant attributes and targets, are set out in the NIS, and summarised in Tables 8.2 and 8.3 of this report as part of my assessment. I have also examined the Natura 2000 data forms as

relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website (www.npws.ie).

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

- 8.12.1. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the sites arise from potential surface water pollution during the construction phase given the hydrological link between the solar farm site and the European sites. No aspects of the operational phase of development have been identified that could affect the conservation objectives.
- 8.12.2. Tables 8.2 and 8.3 summarise the AA and site integrity test. The conservation objectives for the two European sites have been examined and assessed with regard to the identified potential significant effect and all aspects of the project, alone and in-combination with other plans and projects. Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise, and definitive conclusions reached in terms of adverse effects on the integrity of the European sites.

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

		and therefore could not be impacted.			
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padoin, Alnion incanae, <i>Salicion albae</i> [91E0])	To restore the favourable conservation condition of Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padoin, Alnion incanae, <i>Salicion albae</i>).	Unlikely – The only location of alluvial forest set out in the conservation objectives document is greater than 50km downstream from the site. Any silt or other pollutants that may arise from the project would dissipate over that distance and not result in any adverse impact. (It is noted that the NIS does not contain a detailed examination of this habitat)	Even though potential adverse effects are not expected best practice pollution prevention measures are nonetheless set out in Chapter 7 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented. The adjoining permitted solar development (ABP Ref. 311760) includes similar mitigation.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, ‘there will be no significant effects’.
<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	To restore the favourable conservation condition of river lamprey	Yes – Site is hydrologically linked to the SAC and river lamprey are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc.	Best practice pollution prevention measures are set out in Chapter 7 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented. The adjoining permitted solar	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the

		during the construction phase.		development (ABP Ref. 311760) includes similar mitigation.	mitigation measures, 'there will be no significant effects'.
Salmo salar (Salmon) [1106]	To restore the favourable conservation condition of salmon	Yes – Site is hydrologically linked to the SAC and salmon are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase.	Best practice pollution prevention measures are set out in Chapter 7 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented. The adjoining permitted solar development (ABP Ref. 311760) includes similar mitigation.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects'.
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition of otter	Yes – Otter is a highly mobile species and can hold territories from 2km to 20km. As the site is hydrologically linked to the SAC, otters could potentially utilise habitats within the application site. In	Best practice pollution prevention measures are set out in Chapter 7 of the NIS and include detailed measures to mitigate impacts to water quality. In addition, specific mitigation measures in relation to	No likely significant in-combination effects provided mitigation measures are implemented. The adjoining permitted solar development	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there will be no significant effects

		<p>addition otters may be sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.</p>	<p>this mobile species are proposed for implementation, these include the following design, best practice and miigation measures:</p> <ul style="list-style-type: none"> -security fencing to have 10cm gaps to allow otter through the site. -All excavations should be securely covered, or a suitable means of escape provided at the end of each working day. -pre commencement surveys (further measures dependant on survey findings). 	<p>(ABP Ref. 311760) includes similar mitigation.</p>	<p>on the conservation objectives of the River Boyne and River Blackwater SAC'.</p>
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Overall conclusion: Integrity test

Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SAC either alone or in-combination with other projects. No reasonable scientific doubt remains as to the absence of such effects.

Table 8.3: River Boyne and River Blackwater SPA [004232]					
Summary of key issues that could give rise to adverse effects:					
<ul style="list-style-type: none"> Water quality impacts due to pollutants or soil/sediment run-off during construction phase 					
Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004232.pdf					
Summary of Appropriate Assessment					
Qualifying interest feature	Conservation objectives targets and attributes	Potential adverse effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
Kingfisher (Alcedo atthis) [A229]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	Yes – Site is hydrologically linked to the SPA and kingfisher may be sensitive to indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.	Best practice pollution prevention measures are set out in Chapter 7 of the NIS and include detailed measures to mitigate impacts to water quality.	No likely significant in-combination effects provided mitigation measures are implemented. The adjoining permitted solar development (ABP Ref. 311760) includes similar mitigation.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, ‘there will be no significant effects on the conservation objectives of the River Boyne and River Blackwater SPA’.
Overall conclusion: Integrity test					
Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SPA either alone or in-combination with other projects. No reasonable scientific doubt remains as to the absence of such effects.					

8.13. Mitigation Measures

8.13.1. The proposed mitigation measures are set out under Section 7 of the NIS. These mitigation measures concentrate on two features which have been identified as having potential to be impacted by the proposed development namely Otter and the aquatic environment. The mitigation presented is divided into Integral Design Measures, Standard Best Practice Measures and Mitigation Measures, These are described further below. The measures outlined will be implemented prior to or during the construction phase of the development.

Integral Design Measures:

- 2m buffer around drainage ditches and waterways.
- Security fencing to have 10cm gaps to allow free movement of Otter through this site.

Standard Best Practice measures:

- Best practice pollution prevention measures implemented prior to and throughout the construction phase to prevent contaminants entering the aquatic environment. These are listed within Sections 7.3, 7.4 and 7.5 of the NIS and include measure in relation to plant and equipment storage, spill kits, specific storage requirements for fuels, refueling and maintenance within designated area, measures specific to the treatment of wastewater from temporary staff facilities and also toolbox talks.
- All excavations should be securely covered, or a simple means of escape provided at the end of each working day.

Mitigation Measures:

- pre commencement survey - measures dependent on survey findings.

Otter

8.13.2. Although Otter is unlikely to be impacted significantly by the proposed development a pre commencement survey is recommended as a precautionary measure prior to the commencement of works. The pre-construction otter survey must be undertaken within 48 hours of construction start. The NIS states that otter surveys can be carried out at anytime of the year but should be avoided following periods of prolonged

heavy rainfall when spraints and other signs of offer may be washed away. As part of the proposed development design, security fencing is to have mammal gates or a 10cm gap to allow free movement of otter through the site. All excavations during the construction phase of the proposed development will be securely covered. Where this is not possible, a means of escape (e.g. ramp) and daily checks must be included to allow safe exit from the excavation. This would prevent the accidental trapping of this species.

- 8.13.3. A Drainage Management Plan is also included in the NIS with proposed drainage arrangements and specific drainage mitigation outlined from Sections 7.6 to 7.19. These include for emergency spill and pollution response, construction phase arrangements (swales and attenuation areas to attenuate any increase in surface water flows) and operational phase (cleaning of existing drainage ditches to ensure free flow of water, use of eight newly constructed soak away channels on site, retention of current grass cover on site to maximise bio retention, access tracks to be unpaved and constructed from local stone etc.). Specific Drainage mitigation will include for Clean Water Diversion and Silt Control Measures. Waste Segregation and Storage details are outlined under Sections 7.20 to 7.26, this includes measures for storage of fuels and chemicals as per Best Practice Guidance (BPGCS005 – oil Storage Guidelines) and refueling. In addition, measures in relation to excavation, earthworks and dust are also included from Sections 7.29 to 7.31.
- 8.13.4. The NIS also outlines monitoring measures and states that operations and activities that have the potential to impact on the water environment will be regularly monitored throughout the construction of the development. This will be carried out to ensure compliance with any planning conditions and environmental regulations.
- 8.13.5. Due to the fact that the applicant initially screened the development out for stage 2 AA, the Outline Construction Environmental Management Plan (OCEMP) submitted with the application notes that no reliance is placed on ‘mitigation measures’ intended to avoid or reduce the likelihood of significant effects on any European site, stating that general pollution prevention measures are not considered to be mitigation and that notwithstanding this the OCEMP sets out general pollution prevention measures, including SuDS measures. If the Board are minded to grant permission I would suggest a condition is included requiring an updated CEMP to take account of the conclusion contained within the NIS and ensure that appropriate

mitigation measures are included as part of both the design and construction/operation/decommissioning phases.

Residual Impacts

- 8.13.6. Section 7.33 of the NIS states that once all the above mentioned mitigation measures are in place the likelihood of the proposed development impacting the designated sites is lowered. It can therefore be concluded that the proposed development will not have a significant effect upon any qualifying features or conservation objectives of the aforementioned Natura 2000 sites and no residual impact is expected.

Operational Stage

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

Decommissioning Stage

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

In-Combination Effects

- 8.13.9. Existing and proposed plans and projects proximate to the site and those which may have an adverse in-combination impact are set out by the applicant in Section 8 of the NIS. These include a 23.6ha solar farm at Knockstown (MCC Ref. RA170766) which is 1.9km south of the site, infilling and reclamation at a site c. 0.5km northeast of the subject site (MCC Ref. TA160178), and a solar PV farm which immediately adjoins the site areas 1 and 2, over an area of 91.9ha which was permitted by the Board in May 2022 (ABP. Ref. 311760-21). The majority of other previous planning applications in the area or small residential or agricultural developments.
- 8.13.10. I specifically note, that the permitted solar farm adjacent to the application site (ABP. Ref. 311760-21) is proposed to be constructed at the same time as the subject development, the applicant states that this will therefore negate the possibility of an increase in potential contamination during the construction phase. I

would not necessarily agree with this statement however I do note that in the event that construction is carried out in tandem it has been concluded that there will be negligible effects on the qualifying features of the River Boyne and River Blackwater SAC and SPA during the construction phase as a result of the implementation of the stated mitigation measures proposed. Therefore It can be concluded that there is no potential for in combination effects in this regard.

8.13.11. A NIS was also produced for the nearby solar farm development MCC Ref. RA170766 and this assessment concluded that the proposed solar farm would have no direct or measurable indirect impacts upon River Boyne and River Blackwater SAC and SPA.

8.13.12. The applicant reiterates that solar farms have relatively minor footprint due to the panels being mounted on piles and are designed to prevent biodiversity loss. The implementation of biodiversity management plans (BMPs) at constructed solar farms provide suitable habitat and management regime to enhance the solar farms ecological value for local wildlife, therefore, there will be no cumulative loss of habitat if the proposed development is consented. I am satisfied that the applicant has carried out a sufficient in combination assessment and that the mitigation measures outlined under Section 7 of the NIS will ensure no impacts to the connected designated sites occur.

Integrity Test

8.13.13. Following the Appropriate Assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA, in view of the Conservation Objectives of these sites. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with other plans and projects.

8.14. Appropriate Assessment Conclusion

8.14.1. The proposed solar farm development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning & Development Act, 2000 (as amended). Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on River Boyne and River Blackwater SAC (site code 002299) and River Boyne and

River Blackwater SPA (site code 004232). Consequently, an Appropriate Assessment was therefore required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

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

8.14.3. This conclusion is based on:

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

9.0 Recommendation

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

10.0 Reasons and Considerations

10.1. Having regard to:

- (i) European, national, regional, and county level support for renewable energy development such as:
 - the government's Climate Action Plan 2021

- the government's Project Ireland 2040 National Planning Framework
 - the Regional Spatial & Economic Strategy 2019-2031 published by the Eastern and Midland Regional Assembly
 - the Meath County Development Plan 2021-2027 as adopted by Meath County Council,
- (ii) the nature, scale, and extent of the proposed development,
 - (iii) the documentation submitted with the application, including the Natura Impact Statement, Planning Statement and appendices, and the outline Construction and Environment Management Plan,
 - (iv) the nature of the landscape and any specific conservation or amenity designation for the site,
 - (v) mitigation measures proposed for construction, operation, and decommissioning of the site, and
 - (vi) the submissions on file including those from prescribed bodies, the planning authority, and other third parties, it is considered that, subject to compliance with the conditions set out below, the proposed development:
 - would be in accordance with European, national, and regional renewable energy policies and the provisions of the Meath County Development Plan 2021-2027,
 - would not seriously injure the visual or residential amenities of the area, or otherwise, of property in the vicinity,
 - would not interfere with a protected view and prospect of importance, or have an unacceptable impact on the character of the landscape or on cultural or archaeological heritage,
 - would not have a significant adverse impact on ecology,
 - would be acceptable in terms of traffic safety and convenience, and,
 - would make a positive contribution to Ireland's renewable energy requirements.

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

11.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted on the 29th day of October 2021 and 15th day of November 2021, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

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

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

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

Reason: In the interest of clarity.

4. All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Technical Appendices, including the Ecological Impact Assessment, the Archaeology and Architectural Heritage Impact Assessment (including updated version dated 08/10/2021), Flood Risk and Drainage Impact Assessment and the Natura Impact Statement, and other particulars submitted with the application, shall be implemented by the

developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.

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

5. (a) The permission shall be for a period of 35 years from the date of the commissioning of the solar array. The solar array and related ancillary structures shall then be removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.
- (b) Prior to commencement of development, a detailed restoration plan, including a timescale for its implementation, providing for the removal of the solar arrays, including all foundations, anchors, inverter/transformer stations, control building, CCTV cameras, fencing and site access to a specific timescale, shall be submitted to, and agreed in writing with, the planning authority.
- (c) On full or partial decommissioning of the solar farm, or if the solar farm ceases operation for a period of more than one year, the solar arrays, including foundations/anchors, and all associated equipment, shall be dismantled and removed permanently from the site. The site shall be restored in accordance with this plan and all decommissioned structures shall be removed within three months of decommissioning.

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

6. (a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.
- (b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the road.
- (c) Cables within the site shall be located underground.

(d) The MV Power Stations shall be dark green in colour. The external walls of the substation buildings shall be finished in a neutral colour such as light grey or off-white and the roof shall be black/grey.

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

7. Prior to the commencement of development, details of the structure of the security fence showing provision for the movement of mammals shall be submitted for prior approval to the planning authority. This shall be facilitated through the provision of mammal access gates every 50 metres along the perimeter fence or the incorporation of a gap of at least 10cm at the bottom to allow free movement of both species.

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

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

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

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

(c) having completed the work, the archaeologist shall submit a written report to the Planning Authority and to the National Monuments Service in advance of the commencement of construction works. Where archaeological material/features are shown to be present, preservation in situ, preservation by record (excavation) or monitoring may be required.

(d) If significant archaeological remains are found further monitoring or excavation may be required; construction shall not commence until the Planning Authority and the Department have had the opportunity to evaluate

the Archaeological Assessment. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

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

9. (a) The landscape and ecology management plan as submitted to the planning authority on the 25th May 2021 and those updated plans for various sections received on 29th October 2021, drawing numbers NEO000790_72_02_B and NEO000790_73_B shall be carried out within the first planting season following commencement of development.
- (b) Landscaping and planting shall be carried out in accordance with details contained in the Biodiversity Management Plan submitted to the planning authority on the 25th May 2021.
- (c) All existing hedgerows (except at access track openings, entrances or at locations that require thinning as indicated) shall be retained notwithstanding any exemptions available and new planting undertaken in accordance with the plans submitted to the planning authority with the application.
- (d) All landscaping shall be planted to the written satisfaction of the planning authority prior to commencement of development. All planting shall be adequately protected from damage until established. Any plants which die, are removed, or become seriously damaged or diseased, within a period of five years from the completion of the development shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interest of residential and visual amenity.

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

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

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

Reason: In the interest of traffic safety.

11. (a) Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services and, shall otherwise comply with Technical Appendix 4 Flood Risk Assessment and Drainage Impact Assessment submitted to the planning authority on 25th May 2021.

(b) Any cable-laying crossings of watercourses shall be trenchless and subject to an agreed method statement with IFI. No deleterious material shall discharge to any watercourse.

(c) Any proposed culverts, crossings, watercourse diversions or amendments to same shall require a Section 50 consent from the OPW and such written consent shall be submitted to the planning authority prior to commencement of development.

(d) There shall be no development within ten metres of watercourses on site in order to facilitate access and maintenance of same unless otherwise agreed with the OPW and such agreement shall be submitted in writing to the Planning Authority;

(e) Prior to works on site commencing the applicant shall contact Gas Networks Ireland to identify the location of any pipelines within the site boundary. Subsequently any works in the vicinity of the gas transmission pipeline shall comply with the 'Code of Practice, Working in the vicinity of Transmission Network 2021'.

Reason: In the interests of environmental protection, flood prevention and health and safety.

12. The construction of the development shall be managed in accordance with a finalised Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to

commencement of development. This plan shall provide details of intended construction practice for the development, including:

- (a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
- (b) location of areas for construction site offices and staff facilities;
- (c) details of site security fencing and hoardings;
- (d) details of on-site car parking facilities for site workers during the course of construction;
- (e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;
- (f) measures to obviate queuing of construction traffic on the adjoining road network;
- (g) measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
- (h) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
- (i) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater;
- (j) off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;
- (k) details of on-site re-fuelling arrangements, including use of drip trays; (l) details of how it is proposed to manage excavated soil;
- (m) means to ensure that surface water run-off is controlled such that no deleterious levels of silt or other pollutants enter local surface water drains or watercourses.
- (n) Hours of construction.

The finalised Construction and Environmental Management Plan shall also take account of the mitigation measures outlined within the NIS.

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

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

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

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

14. The applicant shall complete a pre and post construction survey of the public road 200 metres either side of each access point. Prior to commencement of development the applicant shall lodge a cash deposit of €50,000 or other security as agreed with the Planning Authority to secure the satisfactory completion of any repairs to the public road identified following completion of the post-construction road survey.

Reason: In the interest of traffic safety.

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

Reason: To ensure satisfactory reinstatement of the site.

16. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

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

Máire Daly

Planning Inspector

14th September 2022