



An
Bord
Pleanála

Inspector's Report

ABP-313032-22

Development	Planning permission to construct a solar PV energy development.
Location	Ballybin (E.D. Kilbrew), Ashbourne, Co. Meath.
Planning Authority	Meath County Council
Planning Authority Reg. Ref.	211918
Applicant(s)	Solar Farmers Ltd (part of Energia Group)
Type of Application	Permission
Planning Authority Decision	Grant Permission
Type of Appeal	Third Party
Appellant	Eco Advocacy CLG
Observer(s)	Alan Tobin
Date of Site Inspection	3 rd June 2022
Inspector	Alaine Clarke

Contents

1.0 Site Location and Description	3
2.0 Proposed Development	3
3.0 Planning Authority Decision	5
4.0 Planning Authority Reports	6
5.0 Planning History.....	11
6.0 Policy Context.....	13
7.0 The Appeal	17
8.0 Assessment.....	27
9.0 Appropriate Assessment.....	42
10.0 Recommendation	51
11.0 Reasons and Considerations	51
12.0 Conditions	52

1.0 Site Location and Description

- 1.1. The site is located in the townlands of Ballybin at Ratoath, Co. Meath and is generally located between the settlements of Ratoath and Ashbourne, c. 540m northeast of Ratoath and c.900m west of Ashbourne. The site is in a rural area and is located c. 650m west of the M2 motorway.
- 1.2. The site bounds a local road, known as Ballybin Road, the L-5018, to the south off which site access is proposed. The site is c.2.1km west of the Fingal County Council administrative boundary.
- 1.3. The site measures an area of 23.58 ha. The land use is agriculture and is under pasture with cattle grazing. The site comprises 13 fields, some of which are portions of larger fields not included within the site boundary. Land in the area is generally flat though gently undulating in parts of the site. The site generally falls gently towards the south and southeast. The elevation is stated to vary within the range of 70-73m AOD. Field boundaries generally comprise mature hedgerow.
- 1.4. The Broadmeadow River, referred to as the Sutherland Stream in the application, flows in a south-easterly direction through the site, joins with the Ballybin Stream on site, where it flows under the Ballybin Road and continues to the Malahide Estuary SPA and SAC, c.15km to the east. Various field drains run along the field boundaries within the site.
- 1.5. There are dwellings, some with associated agricultural buildings, in the vicinity of the site, along the road frontage of the L-5018 to the south' and to the northeast which are accessed via a cul-de-sac off the L-5018. A forestry plantation bounds the site to the northeast.

2.0 Proposed Development

- 2.1. A 10-year permission, with an operational life of 35 years, is sought for a solar PV development with a total site area of 23.58 hectares with a maximum electricity output of 13.5 MW and includes:
 - solar panels mounted on steel support structures, with a maximum height of c. 3.2m, associated cabling (c.2675m) and ducting;

- 5 no. MV power stations, each measuring c.6.06m x 2.44m x 2.9m, with a maximum height of c. 3.2m;
- 1 no. substation, measuring 96m sq;
- 1 no. temporary construction compound, measuring 3,000m sq;
- access tracks, c.5,600m sq;
- boundary security fencing and security gates;
- 3.5m high 19 no. infra-red lighting and CCTV camera units;
- landscaping and ancillary works;
- Although, not specifically referenced in the application documentation, having walked the site and having regard to the drawings, two new river crossings will be necessary.

2.2. Solar panels will be mounted on metal mounting frames arranged in rows facing south and fixed to pile driven galvanised steel posts to a depth of up to 1.5m. The total number of pile-driven poles will be approximately 5,424 each having an area of disturbance of 0.008m².

2.3. The grid connection does not form part of the proposed development. An indicative grid route is included in Figure 1 of the Appropriate Assessment Screening Report and indicates connection to the Baltrasna ESB Substation via the permitted Darthogue Solar Farm (Meath County Council reg. ref. AA201054). The route would travel southwest from the site along the Ballybin Road, 1km into Ratoath before turning northeast onto the Curragha Road for 1.5km into the Darthogue Solar Farm and from there the route extends along the Curragha Road for c.3.57km connecting into the ESB substation.

2.4. The application is accompanied by the following documents:

Volume 1

- Appropriate Assessment Screening Report
- Planning Statement

Volume 2 - drawings

Volume 3 – Technical Appraisals (TA)

- TA1 Landscape and visual impact appraisal
- TA 2 Ecological Impact Assessment
- TA 3 Archaeological and Architectural Impact Assessment
- TA 4 Flood Risk and Drainage Impact Assessment
- TA 5 Construction Traffic Management Plan
- TA 6 Noise Impact Assessment
- TA 7 Glint and Glare Assessment
- TA 8 Construction Environmental Management Plan

2.5. A request for further information issued on 23rd November 2021. A response to the further information request was received on 14th January 2022, including:

- a revised site layout plan including an amended red line boundary to account for unobstructed sightlines;
- a report detailing responses to each of the items in the request, including a response to the issues raised in the third-party submissions; and,
- clarifying that grid connection is to be the subject of separate application and that ducting in roads would be addressed at that stage.

2.6. Procedural Matters – Letters of Consent

2.6.1. I have identified three folio numbers associated with the site MH76662F, MH76660F and MH66 and I note the attached a letter of consent from landowners of land registry folio number MH66.

2.6.2. I note section 34(13) of the Planning and Development Act 2000, as amended, which states that a person shall not entitled solely by reason of a permission under that section to carry out any development.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. By Order dated 17th February 2022 Meath County Council issued a Notification of Decision to grant planning permission, subject to 25 conditions, including:

- Condition 2 – the mega-watt output capacity of the solar farm shall be agreed with the planning authority.
- Condition 4 – appropriate measures to reduce negative effects to aircraft and vehicles shall be implemented if necessary.
- Condition 13 – a post-construction survey of the Ballybin Road shall be undertaken by the applicant 200m either side of the entrance, repairs shall be carried out by the applicant.
- Condition 16 – requires that culverts, crossing, or watercourse diversions or amendments shall be the subject of a section 50 consent from the O.P.W. No development shall take place within 10m of watercourses. Gates at watercourse crossings shall not impact the flow of water in a 1 in 100 year or 1 in 1000 year flood event.
- Condition 19 – requires an archaeological impact assessment to be submitted, to include an archaeological geophysical survey.
- Condition 20 – all structures shall be removed not later than 35 years from the date of commencement of development, and the site reinstated unless permission has been granted for their retention prior to that date. A restoration plan shall be submitted for agreement.
- Condition 25 – requires payment of development levies, as provided for in the Meath County Council Contribution Scheme (amount to be paid subject to agreement of mega-watt output).

4.0 Planning Authority Reports

4.1. Planning Reports

- 4.1.1. There are two planning reports on the file, the first recommending that further information is requested. The report includes a determination that a Stage 2 Appropriate Assessment (AA) is not required. The following points of further information were recommended:

- Revised drawings demonstrating unobstructed sightlines from the entrance, including revisions to red line boundary to accommodate works, if necessary;
- Ducting details within public roads;
- Respond to the third-party submissions.

4.1.2. The second planning report noted that the further information was considered significant and acknowledged that revised public notices were requested and received by the planning authority. The report generally expresses satisfaction with the further information response and recommends permission is granted. The report concludes that a stage 2 AA is not required and states that a development contribution levy of €135,000 is applicable based on 13.5 MW, €1,000 per 0.1MW.

4.2. Other Technical Reports

Transportation Department (dated 14th February 2022):

- Sightlines, including forward visibility of 160m to be provided and maintained;
- Mitigation measures set out in the Construction Stage Traffic Management Plan shall be installed.
- Pre and post-construction survey of the Ballybin Road is required to be undertaken by the applicant 200m either side of the entrance, repairs shall be carried out by the applicant.

Transportation Department (dated 19th November 2021):

- The Ballybin Road is a heavily trafficked local road where traffic speeds approach the speed limit; applicant to demonstrate adequate stopping sightlines. Notes the attempt to overcome the previous reason for refusal by relocating the entrance 20m to the east is not sufficient to eliminate traffic hazard.
- A swept path analysis confirms that turning movements can be accommodated at the access point.
- Construction traffic is expected to be accommodated on the local road network; traffic from the operational phase is not considered significant.

- Pre and post-construction surveys are recommended on Ballybin Road.
- Mitigation measures to be implemented.
- Noted the findings of the applicant's glint and glare assessment.

Environment Department (dated 18th November 2021):

- the construction of a solar farm is classified as a 'highly vulnerable development';
- the site is located in flood zone C where the probability of flooding is less than 0.1% from fluvial flooding;
- Notes the contents of the site-specific flood risk assessment submitted with the application which has determined that the Ballybin Stream and Sutherland watercourse that run through the site do not pose a flood risk;
- The OPW PFRA flood mapping indicates a risk of pluvial flooding on the site, notes the drainage assessment that accompanies the application and the proposal to construct soakaway channels to cater for surface water;
- A section 50 OPW agreement will be required for culverts, crossing, alterations or diversions of watercourses on site;
- No objection subject to conditions, including a requirement for a 10m buffer to OPW maintained watercourses.

Water Services (dated 2nd November 2021):

- The development is broadly acceptable with respect to surface water disposal. The following to be addressed prior to commencement:
 - Maximise opportunity for onsite infiltration;
 - Applicant to upsize the proposed attenuation system by 20% for climate change;
 - Existing ditches shall remain as open drains except for crossings;
 - Consent from the OPW for proposed culverts for access roads of OPW drain ref C1/9/1 and C1/9;

- Compliance with the Greater Dublin Strategic Drainage Study Regional Drainage Policies Volume 2 for New Developments.

4.3. Prescribed Bodies

4.3.1. Irish Aviation Authority (dated 2nd November 2021 and 10th September 2021)

- The development will require a Glint and Glare report.
- The Safety Regulation Division Aerodromes has no observations.

4.3.2. Dublin Airport Authority (dated 3rd November 2021)

- The applicant should demonstrate the proposal would not adversely affect the safety of aircraft operations at Dublin Airport. It is vital that the views of the IAA are taken into account having regard to any potential for glint and glare impact.

4.3.3. DHLG&H (Department of Housing, Local Government and Heritage) – archaeology (dated 4th November 2021):

- An Archaeological Impact Assessment (to include a geophysical survey) is required to assess the impact of potential impact, if any, on archaeological remains before commencement of construction.

4.3.4. Irish Water (dated 30th September 2021):

- Prior to commencement, details of ducting within public roads relative to existing water and/or wastewater infrastructure shall be agreed in writing.

4.4. Third Party Observations

4.4.1. 3 no. observations were received on foot of the planning application from Cllr. Alan Tobin, Eco Advocacy and Kevin and Deidre McMahon. Some of issues raised are covered by the grounds of appeal except for the following:

- The construction noise will greatly affect the rest of a shift-worker, and will have a detrimental effect on his health and ability to carry on employment;
- Noise level of traffic will cause stress to dogs;

- The road is already congested and dangerous. The road is a location of numerous accidents on a weekly basis;
- Proposed access point is on a corner – no clear sight lines;
- Destruction of hedges and trees will disturb wildlife.

4.4.2. Cllr. Tobin’s submission supports the proposed development, setting out the EU targets in relation to greenhouse gas emissions and generally supporting the transition to solar energy from gas and coal power generation.

Responding to submissions, the applicant made the following points to the planning authority:

Lifespan of Permission – the proposed life of the permission is 10 years, with an operational life of 35 years.

Impact on local road network – revised site maps are submitted demonstrating unobstructed sightlines. The Construction Traffic Management Plan addressed issues relating to traffic; traffic generation is considered to be quite low. Mitigation measures are set out.

Noise – noise would not have a significant impact due to limited construction period and distance to residential properties. The relocated entrance will further alleviate noise impacts.

Inappropriate land use / loss of agricultural lands – multi-purpose use of the site is encouraged, the site can revert to open pasture upon decommissioning.

Megawatt capacity - expected output of up to 13.5MW.

Solar Energy Guidelines – reference is made to the Government’s Climate Action Plan and other policy documents which support renewable projects.

Dispatchability – dispatchability is true for all renewable energy technologies, however energy from solar farms is quite consistent as they require daylight (not sunlight). Reference is made to technological improvements.

Grid Connection – a grid connection application will be applied for at a later date.

Visual and Landscape – reference is made to the Landscape and Visual Impact Appraisal (LVIA) submitted with the application, which concluded that no notable cumulative landscape or visual effects will occur as a result of the proposed

development. Hedgerow infilling will assist in integrating the development into the landscape.

EU Sites – Reference is made to the Appropriate Assessment (AA) Screening Report and to the Ecological Impact Assessment (EclA) submitted with the application. Measures to prevent pollution of the aquatic environment are set out.

Health Implications – There is no evidence to suggest that solar farms pose any health and safety concerns.

Impacts on birds – there is evidence to suggest that solar farm development have the potential to support wildlife.

Source of Aggregates – only a small amount of aggregate is required for the access tracks; the exact source location of aggregate will be confirmed prior to construction.

Production of solar panels – the proposed development would not result in negative impacts on soil health or the health of animals and human health. The panels are not prone to degradation or leaching and are governed by the Waste Electrical and Electronic Equipment (WEEE) Directive.

5.0 Planning History

5.1. There is one relevant planning application associated with the site:

- Meath County Council ref. 21/732 – Permission was refused for a solar PV energy development with a total site area of 23.58 ha and associated infrastructure for the following reason:
 1. It is a policy of the Meath County Development [Plan] 2013-2019 (as varied) “To ensure that the required standards for sight distance and stopping sight distances are in compliance with current road geometry standards as outlined in the TII document DN-GEO-03031”. It is considered that the proposed development, by virtue of the lack of stopping sightlines in compliance with TII Standards for traffic approaching the site entrance from the north-east, would result in the creation of a traffic hazard at this location. The proposed development would therefore endanger public safety by reason of traffic hazard and would be contrary to the proper planning and sustainable development of the area.

5.2. Of relevance in the area:

- Meath County Council reg. ref. AA161441 – located 1.6km to the northwest, 10 year permission granted for a solar farm development with a maximum output of 20MW on a site of 52.2ha.
- Meath County Council reg. ref. AA201054 – located c.1.6km to the northwest, 5 year permission granted for a solar farm development with a maximum output of 47MW on a site of 68.8ha.
- ABP Ref. 301151-18 / Meath County Council reg. ref. RA170479 – located c.1.6km to the south, 10 year permission granted on appeal for a solar farm with an output of 31.5MW on a site of 54.5ha.
- ABP Ref. 311066-21 / Meath County Council reg. ref. 21180 – located c. 2.6km to the south, permission granted for a for a solar PV development with a maximum output of 70MW on a site of 82.5 ha.
- ABP Ref. 311831-21 / Meath County Council reg. ref. 21837 – located c.2km to the south, permission granted by Meath County Council is subject to an appeal for a 10 year permission for a solar farm with a maximum output of 220MW on a site of 265.8ha.
- ABP Ref. 301049-18 / Meath County Council reg. ref. AA170860 – located c.4km to the north, permission granted for a 10 year permission for solar PV farm with an output of 35MW on a site of c.56.7ha.
- ABP Ref. 313745-22 / Meath County Council reg. ref. 212165 – located c.3.8km to the northwest, on appeal, permission is sought to extend an existing solar farm on an area of c.42 ha.
- ABP Ref. 301023-18 / Meath County Council reg. ref. RA170644 – located c.4.2km to the south, permission was granted, on appeal, for a 10 year permission for a solar PV development with a maximum output of 51MW on a site of 95.3 ha.
- Meath County Council reg. ref. AA181386 – located c.5km to the southeast, permission granted for a 10 year permission for a solar farm with an output of 34MW on a site of 68.4ha.

- Meath County Council reg. ref. AA160553 – located c. 5km to the southeast, permission was granted, for a 10 year permission for a solar farm with an output of 10MW on a site of 17.54ha.

5.3. I estimate that within a five-kilometre radius of the site, in County Meath, that the permitted solar farms referenced above amount to c.496ha, with an additional c.289ha on appeal.

6.0 Policy Context

6.1. Climate and Energy Policy Framework 2030

6.1.1. 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.

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

6.2.1. 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.

6.3. National Planning Framework (NPF)

6.3.1. The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It is focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and recognises the need to harness both on-shore and off-shore potential from energy sources including solar and deliver 40% of our electricity needs from renewable sources.

- 6.3.2. Section 5.4, 'Planning and Investment to Support Rural Job Creation', notes that 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.
- 6.3.3. It is a National Policy Objective (NPO 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'.

6.4. Ireland's National Energy and Climate Plan 2021-2030

- 6.4.1. The National Energy and Climate (NECP) Plan is an integrated document mandated by the European Union to each of its member states in order for the EU to meet its overall greenhouse gases emissions targets. The plan establishes key measures to address the five dimensions of the EU Energy Union, including:
- To achieve a 34% share of renewable energy in energy consumption by 2030.
 - To increase electricity generated from renewable sources to 70%, indicatively comprised of up to 1.5GW of grid-scale solar energy.

6.5. Climate Action Plan 2021 – Securing our Future

- 6.5.1. This plan sets out a road map for taking decisive action to halve our greenhouse gas emissions by 2030 and reach net zero emissions by 2050. Among the most important measures in the plan is to increase the proportion of renewable electricity, up to 80% of all electricity generation by 2030. At least 500 megawatts of renewable energy will be delivered through such local community-based projects. Action No. 100 seeks to ensure a supportive spatial planning framework for onshore renewable electricity generation development.

6.6. Regional Spatial Economic Strategy, 2019-2031

- 6.6.1. The regional strategy (RSES) for the Eastern and Midlands Region supports harnessing on-shore and off-shore potential from wind, wave and solar and

connecting the richest sources of that energy to major sources of demand. 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 economy.

6.6.2. Section 4.8, 'Rural Places: Towns, Villages and the Countryside' notes the location of future renewable energy production is likely to be met in rural areas and at section 7.9, 'Climate Change' supports an increase in the amount of new renewable energy sources in the Region, including the use of solar photovoltaics.

6.7. Development Plan

6.7.1. The Meath County Development Plan 2021-2027 is the operative plan and came into effect on 3rd November 2021.

6.7.2. The following policies and objectives are of particular relevance:

- ED POL 19: 'to support and facilitate sustainable agriculture ... renewable energy and other rural enterprises at suitable locations in the County'.
- Policy INF POI 34 promotes sustainable energy sources and locally based renewable energy alternatives where it does not have a negative impact on the surrounding environment.
- Policies INF POL 35 and INF POL 36 seek to reduce greenhouse gases through the development of renewable energy sources and support the implementation of the National Climate Change Strategy.
- INF OBJ 39 supports Ireland's renewable energy commitments outlined in national policy by facilitating the development and exploitation of renewable energy sources such as solar where it does not have a negative environmental impact.
- INF OBJ 47 states that it is an objective to investigate the preparation of a Renewable Energy Strategy for the County.
- 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.

- INF OBJ 28 aims to ensure that proposals for the development of solar farms located within areas identified as being within Flood Zones A or B are subject to a Site-Specific Flood Risk Assessment.
- INF POL 43 aims to require that development proposals in respect of solar panel photovoltaic (PV) arrays in the vicinity of Dublin Airport shall be accompanied by a full glint and glare study.
- 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.
- The landscape character assessment, attached as appendix 7 to the Plan identifies the site as being in area 10 'The Ward Lowlands'. The site is in a high sensitivity landscape.
- 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.

6.8. Natural Heritage Designations

6.8.1. The nearest designated sites are:

- Malahide Estuary SAC and proposed Natural Heritage Area, site code 000205, c.15.5km to the south-east.
- Malahide Estuary SPA, site code 004025, c.15.8km to the south-east.
- Rogerstown Estuary SAC and Rogerstown Estuary proposed Natural Heritage Area, site code 000208, c.15.8km to the east.
- Rogerstown Estuary SPA, site code 004015, c.16.6km to the east.
- Rye Water Valley Carton SAC c. 15.5km to the south-west.

6.9. EIA Screening

- 6.9.1. The proposed development is not of any type included in Schedule 5 of the Planning and Development Regulations 2001 (as amended), i.e., development for which mandatory EIA is required, nor is it integral to any project that is of a type included in Schedule 5. Having regard to the nature and scale of the development there is no real likelihood of significant effects on the environment arising from the development. The need for environmental impact assessment can, therefore, be excluded at preliminary examination and a screening determination is not required.

7.0 The Appeal

7.1. Grounds of Appeal

Eco Advocacy CLG, have submitted an appeal against the decision to grant permission. The issues raised include:

- The application is premature pending guidelines and a Strategic Environmental Assessment (SEA) of utility scale solar installations. Approach should not be developer-led.
- Proposal to use finite agricultural land is outrageous, incompatible with proper planning and sustainable development and should be declined. Proposal is unnecessary and is industrial vandalism of the landscape.
- Clarity on number of years applied for.

- The war in Ukraine has created concerns for grain supply throughout Europe, resulting in the Government asking Irish farmers to grow grain. It is irresponsible to allow large tracts of utility grade solar panels take over prime agricultural land. Impacts farming and ability to sequester carbon.
- Make more sense to use roof surfaces, other hard surfaces, or brownfield sites. Examples of rooftop solar installations are provided.
- What is the megawatt capacity of proposal?
- Panels will not track the sun. Ireland too far north to be efficient in terms of capturing solar energy.
- The negatives outweigh the benefits.
- The Renewable Energy Support Scheme (RESS) is unsustainable; if there were no grants there would be no solar.
- Was EIA or screening for EIA submitted? If so, is it adequate?
- Was a Natura Impact Assessment / Appropriate Assessment submitted? If so, is it adequate?
- Deep Bore Geothermal is preferable.
- Applications should be looked at in a wider planning context. Details of all solar applications should be provided.
- Consider EMF exposure.
- A full cost/benefit analysis should be conducted to establish value for money and compare with other forms of sustainable energy.
- Grid connection needs to be considered, citing *O Grianna & Ors v An Bord Pleanála*.
- Considers the planner's report does not adequately assess concerns and issues raised. Reference to *Kelly v An Bord Pleanála* 2014 IEHC 400 and *Sweetman v An Bord Pleanála* C258/11.
- Disagrees with the term 'solar farm'.
- Proposed use is different from established use/inappropriate land use.

- Re dispatchability – solar power is highly sporadic and erratic. Solar systems have not reduced fossil-fuel powered utilities. CHG emissions from solar are worse than nuclear and wind power.
- Batteries are required and are toxic, huge battery storage is required.
- End of life panels are hazardous waste, lists toxic chemical components. Panels should not be put to land-fill.
- Solar farms warm the Earth's atmosphere; not all sunlight is absorbed.
- Manufacturing silicon wafers for solar panels depends on fossil fuels, nuclear and /or hydro power and generates toxic emissions.
- What's inside a PV - citing an article published in Foundation for Economic Education and website Energy Save, referencing toxic chemicals in panels and health and environmental concerns arising and associated carbon footprint.
- Regarding runoff/habitats/human health, solar pv panels can disrupt aquatic insects' reproduction; cause channelisation of runoff; does runoff pose a threat to groundwater; Cadmium Telluride and Gallium arsenide (GaAs) used in solar cells/panels are carcinogenic. Harmful GHG are used to manufacture panels; an assessment of metals / substances are required. Regarding sheep grazing – has research been done on contaminated runoff on meat? Questions how much polytetrafluoroethylene (PTFE) and fluorinated ethylene (FEP) are used in panels, how much leaks from discarded panels, how much impacts human health?
- Consider the issue of build-up of leached heavy metals on soil health, animal, and human health; calls for microbial studies on soil.
- Request details of the heavy metals and rare earth metals used in the solar panels, and an analysis of the environmental impacts and costs of production.
- Questions the sustainability of the proposal in terms of the components of the panel's support structure, adequate sun light, carbon footprint, use of finite resources.
- Geophysical analysis on archaeology required.

- Proposal is contrary to amenity and tourism in the area/region.
- Should question the narrative that one energy is cleaner than another.
- Drive for data centres is unsustainable, contributing to destruction of landscape and finite resources.
- Would give rise to significant traffic movements, interfering with amenities and increased NO2 levels.
- Will be a source of significant noise.
- Employment in construction arguments is erroneous. Horticultural landuse would provide more sustainable jobs.
- Concerned over the visual impact of solar panels in concentrated area of heritage, referencing heritage attractions in Counties Kildare, Meath, Wicklow, Offaly and Westmeath.
- Destruction of agricultural land is contrary to the European Landscape Convention.
- Dissatisfaction with the AA and asks for the NIS to be examined more closely.
- The integrity of European sites must not be compromised.
- Ask the Board to satisfy itself that the proposal complies with the EIA Directive, ECJ case law, article 6 of the Habitats Directive and the SEA Directive, citing judgements. Considers the applicant has ignored obligations under the SEA Directive.
- Application should not be considered in isolation; need to consider wider planning context.
- Solar panels fry birds and pose a particular hazard for migratory birds, citing articles in support.
- Enforcement is poor. Conditions will not be enforced. Self-policing is problematic.
- Consider human rights issues – forced labour to make solar panels.

- Re source of aggregates – where will they be sourced. A substantial amount of aggregate quarried is unauthorised or conditions are not complied with. Consider NO2 pollutants. Establish quantities of aggregate required and carbon footprint.
- The trouble with solar waste - citing several articles regarding electronic waste and waste related to solar panels: Amount, composition, challenges to re-cycling, global inequality (dumping in poor nations), etc.
- Concern raised regarding impact on air traffic.
- Concerns raised over electrical issues; short circuits, arc faults, arc flash. Are fire services equipped to deal with a fire at a solar installation?
- An analysis of some components in the construction industry is provided.
- Alternative energy sources are outlined: including deep-bore geothermal which is the most promising and its advantages are set out. A list of recent articles in support of Deep Bore Geothermal is provided.
- Examples of rooftop solar installations are provided.
- Re. capacity factors – output claims are ambitious, citing an article relating to capacity factors, a guide to understanding the limitations of energy sources like wind farms.
- Concluding points focus on dispatchability issues with solar farms; European Law on SEA is not complied with; proposals are grant-driven; leads to a loss of agricultural land; roofs should be used; solar has only a small part in the energy matrix; heritage and tourism impacts from incongruous built form, consider that lack of public consultation is contrary to the Aarhus Convention and Public Participation Directive. Request that the decision to grant is overturned.

7.2. Applicant Response

- 7.2.1. Neo Environmental provided a lengthy and repetitive response to the grounds of appeal on behalf of the applicant. The response includes Appendix 1, a Natura Impact Statement. The main body of the response includes the following points:

- 7.2.2. Re. finite agricultural land/inappropriate land use: the land will be more sustainably used through the dual use of less intensive grazing and production of renewable energy. The land will be fully reinstated upon decommissioning.
- 7.2.3. Re. life and duration of permission: it was confirmed that the life of the permission is 10 years; the operation and restoration plans is for 35 years.
- 7.2.4. Re. war in Ukraine has created concerns for grain supply: the war has highlighted Ireland's dependency in imports; the most important action for reducing fossil fuel use is the delivery of the Climate Action Plan
- 7.2.5. Re: megawatt capacity/dispatchability: the use of bi-facial panels means there is potential to produce more electricity in less space. Improved technology and energy storage technology ensures that intermittency and dispatchability effects are mitigated. The production of intermittent renewables such as wind and solar are intermixed so as to utilise both sources at a given time.
- 7.2.6. Re. community benefit: the proposed development would provide numerous benefits to the community, including:
- Economic – diversified source of income, employment and a community benefit fund will be available to the local area.
 - The land would be taken from intensive agricultural use;
 - Low level ground disturbance.
- 7.2.7. Re. RESS scheme / grants: ensures that only projects with the lowest cost of energy are successful. It is a key element in reaching Ireland's 2030 climate targets. Solar farms are essential to meet climate action objectives in National Planning Framework.
- 7.2.8. Re. productivity / intermittent power: visible light, and not daylight, drives PV cells. Long hours of daylight also assist.
- 7.2.9. Re. oppose use of agricultural land/inappropriate land use: it will result in ground disturbance of 4.8%. It will result in ecological enhancement. The site can be used for agricultural purposes throughout lifetime of solar farm.
- 7.2.10. Re. compliance with the EIA Directive: there is no requirement to submit an EIAR; sets out the legislation relating to EIA requirements.

- 7.2.11. Re compliance with EU Habitats Directive: a NIS is submitted with the response to the appeal and concludes that any adverse effects on the integrity of the European Sites considered in the NIS arising from the proposed development, alone or in combination with other plans or projects can be excluded beyond reasonable scientific doubt.
- 7.2.12. Re. deep bore geothermal energy: the proposal is for a solar farm; geothermal is relatively untested in Ireland.
- 7.2.13. Re: multiple applications from various applicants: Cumulative effects were considered; no significant cumulative effects were identified; development is reversible. Benefits to scheme are outlined.
- 7.2.14. Re: 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.
- 7.2.15. Re: cost-benefit analysis of resources: this is not a relevant planning consideration.
- 7.2.16. Re: Planner's report: the Planner was satisfied that all concerns and issues raised in the submissions were fully addressed.
- 7.2.17. Re. grid connection: proposed grid route is not required to be included as part of an application for a solar farm. The grid route was a consideration in the initial site appraisal.
- 7.2.18. Re: absence of guidelines for solar energy/is developer-led: National, regional and local planning policy support the development of renewable energy technology.
- 7.2.19. Re: use of the term solar farm: solar farms support diversification in agriculture.
- 7.2.20. Re: GHG emissions/renewables will not prevent global warming: references publications that support renewable energy. Solar energy creates an insignificant carbon footprint compared with savings from avoiding fossil fuels.
- 7.2.21. Re: impact on residents' health: An Bord Pleanála have previously discounted impacts on public health in respect of a number of appeals.
- 7.2.22. Re: what's inside a PV: 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 and hexafluoroethane. Panels are 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 byproducts.

- 7.2.23. Re: Use of water to wash panels could otherwise go to farming: maintenance of the solar farm includes washing of panels, if required.
- 7.2.24. Re: habitats/human health/run-off: no large body of water nearby so unlikely 'lake effect' will occur. Agricultural practices can pose a threat to aquatic species. Habitats for invertebrates will be improved. A Flood Risk Assessment identified that there is no risk of flooding from the watercourses which flow through the site. No formal drainage system is required given small scale of buildings and their widespread nature. Measures to prevent pollution are listed.
- 7.2.25. Re: hazardous fluids to transfer heat; falling branches: the proposal is not a solar thermal system; no potential risk to watercourses. A sufficient buffer from trees/hedgerows is proposed.
- 7.2.26. Re: production of solar panels/soil impact/heavy metal poisoning: proposed development would not result in negative impacts on soil health, animals or human health.
- 7.2.27. Re: analysis of environmental impacts, costs and human rights: The applicant is committed to operating in a socially, environmentally and ethically responsible manner and is committed to ensuring that the supply chain is properly vetted.
- 7.2.28. Re: alternative locations for solar development, including roof space: supports the development of solar and other forms of renewable energy development at appropriate locations.
- 7.2.29. Re: carbon footprint of steel support structures and cement/amount of aggregate: this is an insignificant carbon footprint compared with savings from avoiding fossil fuels. Very little concrete is used.
- 7.2.30. Re: archaeology: applicant is committed to undertaking a full geophysical survey of the site and welcomes a condition in this regard.
- 7.2.31. Re: amenity and tourism impacts of motorways/visual impact of large-scale concentration: no motorways are proposed as part of the proposed development. A Landscape Visual Impact Assessment and an Archaeology and Architectural

Heritage Impact Assessment was undertaken – concluding that no notable cumulative or visual effects will occur on landscape or surrounding heritage assets.

- 7.2.32. Re. questioning the narrative of clean energy supply: Renewables are cleaner and offer a sustainable alternative to fossil fuels. There are significant policy drivers at government level to support renewable energy. Panels have become more productive, resilient and cost-effective.
- 7.2.33. Re. rural Ireland/data centres/utility and solar: the points raised in relation to data centres are irrelevant.
- 7.2.34. Re: devaluation of property: there is no evidence to prove that solar farms decrease the value of property in that particular area.
- 7.2.35. Re. traffic movements: a Construction Traffic Management Plan (CTMP) was submitted with the application: construction and operational traffic will be low. Traffic will be managed and scheduled.
- 7.2.36. Re. noise and disturbance: the key activities which are considered to be those with the most potential to result in adverse noise effects; the highest noise level will from compaction of access tracks; effects are temporary and low impact.
- 7.2.37. Re. short-term and insignificant employment: will generate some employment during construction, local services will be utilised where possible, will be limited post-construction jobs; will generate business rates and contributions.
- 7.2.38. Re. European Landscape Convention: site selection was carried out with a review of the County Development Plan. Additional planting is proposed and will become established within a relatively short period of time. The proposed development will have a minor to moderate adverse effect which will reduce to minor adverse by c. year 5.
- 7.2.39. Re. dissatisfied with AA screening: Meath County Council undertook an AA Screening and concluded that a NIS was not required. For completeness a Natura Impact Statement (NIS) is submitted and included as Appendix 1 to the response to appeal.
- 7.2.40. Re. compliance with SEA Directive and ECJ case law: 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.

- 7.2.41. Re: birds: 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.
- 7.2.42. Re: planning and enforcement / compliance with conditions: the development is compliant with all relevant planning policies. The applicant intends to comply with all conditions.
- 7.2.43. Re: source and quantities of aggregates: source of aggregate will be decided at a later date; will be from a nearby authorised quarry.
- 7.2.44. Re: solar waste/waste dumping: current waste legislation was taken into account during the production of the waste management report. Solar modules are governed by the Waste Electrical and Electronic Equipment (WEEE) Directive.
- 7.2.45. Re: air traffic: a glint and glare assessment has been undertaken; no runways, approach paths or ATCTs were identified as being affected.
- 7.2.46. Re: electrical safety: the solar farm will operate autonomously. There will be scheduled visits and regular reporting. Fire risks are not any greater than those associated with other electrical equipment. All live electrical equipment maintenance must be carried out by trained personnel using appropriate tools and PPE. A detailed health and safety plan will be in place.
- 7.2.47. Re: alternative renewable energy sources: general commentary on alternative renewable energy sources including that geothermal is relatively untested in Ireland and would require significant research and identification of suitable sites. States that without large-scale utility type wind and solar farms Ireland will not meet its renewable energy targets.
- 7.2.48. Re: lack of public consultation: a leaflet drop was undertaken for residences within 0.5km; all telephone and email queries were followed up, where necessary.

7.3. **Planning Authority Response**

The planning authority is satisfied that all issues raised in the appeal were considered in the course of its assessment. It considers that the proposed

development is consistent with the proper planning and sustainable development of the area and requests that the decision to grant permission is upheld.

7.4. Observations

One observation was received from Cllr. Alan Tobin. The observation offers a rebuttal of the points raised in the appeal. The issues raised in the observation are generally covered in the grounds of appeal.

7.5. Further Responses

- 7.5.1. The Board invited submissions in respect of the applicant's response to appeal.
- 7.5.2. Meath County Council, in response, stated it had no further comment to make. It considers that the proposed development is consistent with the proper planning and sustainable development of the area, and that permission should be granted.

7.6. Notice of Natura Impact Statement

- 7.6.1. Following the applicant's response to appeal, which included a Natura Impact Statement (NIS), the applicant was directed to publish a new newspaper notice and erect a new site notice, in accordance with section 142(4) of the Planning and Development Act, 2000, as amended. A copy of the notices were subsequently submitted to An Bord Pleanála.
- 7.6.2. No submissions or observations were received in respect of the notice of Natura Impact Statement.

8.0 Assessment

- 8.1.1. Having examined the application details and all other documentation on file, including all of the submissions received in relation to the appeal, having 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/loss of agricultural land
 - Landscape and visual impact

- Health and safety
- Noise
- Traffic and transport
- Glint and glare
- Sustainability of solar technology
- SEA / EIA
- Grid Connection
- Duration of permission
- Ecological impact
- Flood risk – **NEW ISSUE**
- Appropriate assessment

The following assessment is dealt with under these headings.

8.2. The Principle of the Development/Loss of Agricultural land

- 8.2.1. The grounds of appeal argue that in the absence of national guidance on solar developments that the proposed development is premature. The appeal states that it is irresponsible to take over prime agricultural land for utility grade solar panels.
- 8.2.2. The proposal consists of a solar photovoltaic (PV) development with associated infrastructure, landscaping and cable route to enable the export of renewable energy to the national grid. 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'.
- 8.2.3. While the Meath County Development Plan 2021-2027 does not contain a Renewable Energy Strategy it supports the development of renewable energy.

Policies INF POL 34, 35, 36 and DM POL 27 (listed 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 a rural area.

8.2.4. I note that the Meath County Development Plan 2021-2027, at section 6.15.3.1, 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'.

8.2.5. The site is located on agricultural lands that are outside any designated settlement. The site is zoned as '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. I note that less intensive agricultural use (e.g., sheep grazing) can take place alongside the solar farm use.

8.2.6. At decommissioning stage, all solar panels, cabling, structures etc, will be removed and the site will revert to agricultural use. 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.

8.2.7. Conclusion

There is no national guidance in relation to the location of solar energy facilities. National guidance and/or a Renewable Energy Strategy for the County would be of benefit particularly having regard to the number and scale of this type of development on large tracts of agricultural land in the area. Notwithstanding, there is policy support for this type of renewable energy development at national, regional and local policy levels and I am satisfied that the proposed development is suitably located and is acceptable in principle.

8.3. **Landscape and Visual Impact**

8.3.1. The grounds of appeal argue that the proposed development amounts to industrial vandalism of the landscape and is contrary to the European Landscape Convention.

Concern is also raised about the visual impact of solar panel developments in heritage areas.

- 8.3.2. The application is accompanied by a Landscape and Visual Impact Appraisal (LVIA) submitted as technical appendix 1 of the application. The LVIA notes that during fieldwork, the site was found to be largely contained by its low elevation and mature vegetated field boundaries and the LVIA is thus based on a 2km radius for the consideration of potential landscape and visual effects. The Landscape and Ecology Management Plan are stated to show the landscape mitigation measures incorporated into the overall design scheme.
- 8.3.3. The site is generally flat, although somewhat undulating, and lies at elevation of 70-73m AOD and covers a total area of c. 23.58 ha. The site comprises 13 fields in agricultural use (cattle farming) which are generally bound by mature hedgerows. The highest lands are along the eastern boundary, in fields 4 and 13, although it is noted that no solar panels are proposed in field 13. The Ballybin Road runs immediately south of field 11, which is outside the site boundary, and field 10 which is within the site boundary but where solar panels are not proposed. Fields are typically small to medium in scale and are well enclosed by hedgerows. Views within the site are contained due the existence of mature hedgerows along field boundaries.
- 8.3.4. In the Meath County Development Plan 2021-2027 the site is entirely located in Landscape Character Area (LCA) 10, 'The Ward Lowlands'. The Landscape Character Assessment described the LCA as having a low landscape value and a high landscape sensitivity. According to the Landscape Character Assessment, Area 10 has medium potential capacity to accommodate large farm buildings and new visitor facilities, low potential capacity to accommodate multi-house developments, overhead cables, underground services, wind farm development and biomass and commercial forestry. There are no protected views and prospects in the vicinity of the site.
- 8.3.5. A Zone of Theoretical Visibility (ZTV) maps were prepared, which determines the potential extent of the proposed development's visibility across the study area (Appendix 1A). The ZTV maps indicate that the potential for visibility across the larger 5km study area is reduced; coverage is largely concentrated within the entirety

of the 2km study radius, and generally extends beyond the 2km radius to the northwest, southeast and east.

- 8.3.6. Eight viewpoints were selected for assessment from points along publicly accessible routes. Of the eight viewpoints, only three are modelled to show the proposed development at Year 0 (with initial site planting) and Year 5 (with more established planting).
- 8.3.7. The LVIA judges the sensitivity of the site to be 'medium', which I consider is an appropriate weighting having regard to the relatively flat site, quality of mature hedgerows and presence of a meandering watercourse through the site.
- 8.3.8. The LVIA considers that construction and decommissioning works will result in a temporary moderate adverse landscape effect during construction and decommissioning, experienced at site level. During operation, the LVIA considers the scale of landscape change, at a local site level, will be medium in the initial operational years reducing to low as mitigation planting matures, resulting in a moderate adverse landscape effect reducing to a minor adverse landscape effect.
- 8.3.9. In respect of the wider landscape change on The Ward Lowlands LCA, the LVIA judges the magnitude to be medium locally, extending to a c.0.2km radius from the proposed development, reducing with distance as mitigation planting matures and low for the LCA as a whole. Potential cumulative impacts of permitted but not yet constructed solar farms, located within 2km of the appeal site, were assessed in the LVIA. Given the contained nature of the site the LVIA considers it unlikely that the proposed development will be seen in either combined, successive or sequential views from within the LCA.
- 8.3.10. Mitigation measures are set out in the LVIA and include: structures will be off set 5m from the nearest existing hedgerows and 2m from drainage ditches; 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 along the south-eastern, southern and south-western boundaries of the proposed development.
- 8.3.11. I agree with the LVIA that the visibility of the solar farm and associated structures will be largely contained by the mix of hedgerows and trees within the boundaries of the

site and surrounding farmland, the visual effects reducing over time as mitigation planting matures.

8.3.12. It is noted that a number of applications for solar farm developments have been made in the general area. While I consider that collectively, proposed and permitted solar schemes in the vicinity have the potential to significantly alter the general landscape in the rural area over the short term, I am satisfied that the site is relatively flat and 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.

8.3.13. I consider the LVIA and photomontages submitted with the application is an accurate reflection of the impact that the proposed development would have, and is sufficiently detailed. I acknowledge the concerns raised in the appeal regarding the visual and landscape effects of the proposed development individually and cumulatively. I note the separation distance of solar panels from public roads at a minimum of c. 55m, and from residential properties along the Ballybin Road, at a minimum of c.170m, (excluding the residence on the landholding which would be c.70m from the proposed solar panels).

8.3.14. Conclusion

In my opinion, the relatively flat landscape, the limited height of the proposed solar panels, 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 or landscape of the area.

8.4. **Health and Safety**

8.4.1. 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 our natural resources, including soil, aquatic life and human health.

8.4.2. 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 the solar panels proposed are single crystal silicon which originates from sand.

8.4.3. 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.

8.5. Noise

- 8.5.1. The grounds of appeal consider that the proposed development will be a source of significant noise. This issue is also raised in the observation received by Meath County Council from Kevin and Deidre McMahon.
- 8.5.2. A Noise Impact Assessment, prepared by Neo Environmental accompanies the application, and includes a Noise Assessment Map and Manufactures Noise Data. A total of 18 noise sensitive receptors (all residential dwellings) were included in the assessment within a study area of 500m of the application site.
- 8.5.3. Noise modelling was undertaken to predict noise levels and assess acoustic impact arising during the operational phase of the proposed development. The main noise source associated would be from the five power stations which enclose the inverters and transformer. The solar panels do not generate noise.
- 8.5.4. No baseline monitoring was conducted due, according to the Noise Impact Assessment, to the relatively low levels of noise produced from solar farms. A background noise level of 35dB (LA90), typical of a rural night-time setting with no wind, was used for comparison purposes. 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. The noise source will be constant during daylight hours once operational and for the purposes of the assessment the noise sources were considered as constant. No exceedance above 35dB is predicted at the 18 residential receptors within the study area. The proposed development is predicted to have a negligible or low impact at all receptors and no mitigation is considered necessary.
- 8.5.5. 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 Noise Impact Assessment. The applicant, in its response to a request for further information acknowledges that the construction

phase would result in minor additional noise which it considers would not have a significant impact on residential amenities having regard to the limited construction period and distance from residential properties. I accept there will be a negative impact during the construction period on those residential properties closest to the proposed entrance, 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.

8.5.6. Conclusion

Having regard to the Noise Assessment and 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.

8.6. **Traffic and Transport**

- 8.6.1. The grounds of appeal raise concerns that the proposed development would give rise to significant traffic movements, interfering with amenities and would lead to increased NO₂ pollutants. As further information was submitted by the applicant to Meath County Council amending the proposed entrance, this assessment also considers the revisions to the scheme.
- 8.6.2. A Construction Traffic Management Plan (CTMP) accompanies the planning application and describes the existing road network in the vicinity and the potential traffic and transportation impacts on same. The site access is via a new access point off the L1007 (Kilbridge Road) which bounds the site to the south. Impacts from the operational phase are stated to consist of between 10-15 LGVs p/a. During the anticipated four-month construction period, a total of 347 HGV deliveries will be made to the site, with an estimated maximum 15 HGV deliveries per day. Approximately 30 staff are expected to be on site at any one time. A number of mitigation measures are proposed generally around good traffic management systems. Having regard to the short-term nature of the construction phase and the overall low volumes of traffic associated with the proposal I do not consider that the proposed development would give rise to significant traffic movements.
- 8.6.3. The haul route is indicated to be from the M2, located east of the site. Vehicles will exit the M2 onto the R135 and travel in a southern direction for c.0.5km before

turning right onto Ballybin Road travelling for 2.5km before turning right into the site. The CTMP indicates that no abnormal loads are required to be delivered. The applicant proposes to conduct a pre and post-construction condition survey of the Ballybin Road, 200m either side of the access point, and undertakes to reinstate the road if required. I note condition 14 of the planning authority's grant of permission required completion of a pre-and post-construction survey of local road, and that the applicant shall bear all costs associated with the repair of any damage caused as a result of the development. I consider a standard condition in this regard could be attached to any grant of permission that may issue.

8.6.4. The applicant refers to TII publication, Geometric Design of Junctions, outlines a desirable visibility splay dimension of 160m x 2.4m for a road with an 80km/h speed limit. It is proposed to increase the sightlines from the access point to 160m by widening the entrance and possibly relocating two telephone poles.

8.6.5. I note that the previous application for a similar development was refused by Meath County Council (reg. ref. 21/732) because it would result in the creation of a traffic hazard arising by virtue of the lack of stopping sightlines in compliance with TII standards.

8.6.6. During the assessment of the current application, in response to a request for further information to achieve unobstructed sight lines and stopping distances, the site entrance was moved further east, by c. 180m. Amended drawings including a reconfiguration of the site boundary were submitted to the planning authority, and subsequent revised public notices were submitted by the applicant. The revised entrance necessitates the removal of c.65m of hedgerow. I note the second report from the Transportation Section of Meath County Council, dated 14th February 2022 which indicated that it had no objection to the proposed development. I am satisfied, having regard to the revised drawings indicating 160m stopping sightlines and the report of Meath County Council indicating its satisfaction with the revisions, that should be Board be minded to grant permission, that the permission would relate to the details submitted as further information; revised site boundary, site entrance and public notices refer.

8.6.7. Conclusion

Following a site inspection and a review of the application documentation, including the Construction Traffic Management Plan, and having regard to the haulage routes and local road network which I consider suitable to carry the additional load and traffic required during the construction phase, and having regard to short-term nature of the construction project and the overall low volumes of traffic associated with the proposal, I am satisfied that the proposed development is acceptable from a traffic safety and roads perspective. I am satisfied, taking account of the measures proposed and the use of appropriate conditions, that the issue of traffic can be adequately addressed.

8.7. Glint and Glare

- 8.7.1. The grounds of appeal raise concern regarding impact on air traffic, i.e., potential for glint and glare impacts from the proposed development. In broad terms, glint is produced as a direct reflection of the sun on a smooth surface, such as a solar panel, while glare is a more scattered reflection of light produced from a rougher surface and is less intense than glint.
- 8.7.2. A Glint and Glare Assessment, prepared by Neo Environmental, is attached as Appendix 7 to the application. 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 are considered. Five aerodromes are located within the 30km study area; however, only Dublin Airport and Weston Airport were considered close enough to require a detailed assessment due to their size and orientation.
- 8.7.3. The assessment of impact for Dublin Airport and Weston Airports states that no runways or approach paths are affected by glint and glare from the proposed development; the impact on all aviation receptors is none. I note that the submissions received from Dublin Airport Authority and the Irish Aviation Authority did not raise any specific concerns.
- 8.7.4. With respect to ground receptors, geometric analysis was conducted for 33 individual residential receptors, including 3 residential areas and 20 road receptors. I am satisfied with the scope of receptors analysed. The assessment concluded that solar reflections are possible at 32 of the 33 residential receptors and 17 of the 20 road receptors, upon reviewing the actual visibility of the receptors, glint and glare impacts

reduced to none, at all receptors. Having carried out a site inspection and following a review of the Glint and Glare Assessment, in particular Appendix 7H, Visibility Assessment Evidence, I am satisfied that the proposed development will not have any significant glint and glare impact on the identified receptors. I note that no mitigation is required, however hedgerows will be maintained to have a height of between 3-4m, which will further assist in containing the impact on ground receptors.

8.7.5. Conclusion

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 runways and ATCTs at both Weston and Dublin Airports. No mitigation measures are necessary, although hedgerows will be maintained at 3-4m. I am satisfied that the issue of glint and glare on aviation and ground receptors is satisfactorily addressed, and I consider the proposed development is acceptable in this regard.

8.8. **Sustainability of Solar Panel Technology**

- 8.8.1. The grounds of appeal are largely centred around the use of solar voltaic panels for renewable energy production versus other technologies, and the negative environmental impacts of use of solar panels.
- 8.8.2. Arguments are made in the grounds of appeal that solar panels contain metals and other finite resources and are liable to leach chemicals into the ground; that they involve disposal of waste with implications for poorer countries; have negative impact on birds; involve risk of fires and electrical short circuits; and that the solar farm will reduce the amount of valuable land available for agricultural use. These issues are, in my opinion, sufficiently addressed by the applicant in the response to appeal who note, among other arguments that solar farms are passive installations which do not produce harmful byproducts and, that once constructed, panel contents are held in an insoluble solid matrix which is not prone to degradation or to leaching.
- 8.8.3. I do not consider that it is necessary for the Board to adjudicate on the relative benefits of the various renewable energy technologies. Solar energy is supported in relevant national, regional and local plans and across government policies. No particular negative impacts are apparent. Decommissioning and the disposal of the

panels is currently regulated under waste regulations and will be similarly regulated at the end of the projected 35 year life.

- 8.8.4. In my opinion these matters have been adequately addressed and should not be a reason to refuse or modify the proposed development.

8.9. **SEA / EIA**

- 8.9.1. The appeal asks the Board to satisfy itself that the proposal complies with the EIA Directive and the SEA Directive. The response from the applicant refers to the cascade of plans which have been subject to strategic environmental assessment (SEA) under which the proposed development falls to be considered. The response notes it has been determined previously that EIA is not required.
- 8.9.2. SEA is a process to which plans relating to policy are subjected, such as the current Meath County Development Plan, which, as previously referred to, generally supports solar power generation. Other strategic plans, such as the National Planning Framework and the Eastern and Midlands Regional Spatial and Economic Strategy have been subject to SEA and support renewable energy development.
- 8.9.3. As regards environmental impact assessment (EIA), this was dealt with under an earlier heading in this report, where it was concluded that the need for environmental impact assessment can be excluded at preliminary examination and a screening determination is not required on the basis that solar farms is not a class of development for the purposes of EIA.

8.10. **Grid Connection**

- 8.10.1. The appeal states that the grid connection needs to be considered, citing O’Grianna & Ord 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.

8.11. Duration of Permission

8.11.1. The appeal queries the duration of permission. It is noted that a 10 year permission was not expressly sought. The applicant clarified in the response to the planning authority 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.

8.11.2. Ecological Impact

8.11.3. An Ecological Impact Assessment (EclA) prepared by Neo Environmental accompanies the application and includes the findings of a Habitat Survey. A Biodiversity Management Plan is also included with the application. A Natura Impact Statement (NIS) was submitted to the Board in response to the appeal. Impact on Natura 2000 sites is considered in section 9.0 of this Inspector's Report. The appeal considers that the solar panel run-off in particular will cause a risk to aquatic species.

8.11.4. The EclA finds that the site has been identified as arable or improved agricultural grassland, which are of low ecological value with limited potential to support wildlife. Potential impacts include habitat loss and fragmentation, disturbance to wildlife during construction and decommissioning, and surface water contamination. No drawings or details have been submitted with the application in respect of the proposed watercourse crossings and in my opinion the construction of these crossings have the potential to impact water quality and aquatic species. No consideration or assessment of the proposed river crossings are provided in the EclA.

8.11.5. While I note the OPW maintain the Broadmeadow River which traverses the site and that consent for any such crossing is a matter for the OPW, I am satisfied that the wider pollution control measures to be applied across the site (as set out in the Outline Construction and Environmental Management Plan) are sufficient to mitigate impacts on wider quality and aquatic life.

8.11.6. Measures to mitigate impact and enhance the site's ecological value include:

- 2m buffer from drainage ditches
- 6m buffer to OPW drains
- Mammal gates in security fencing;
- Pre-commencement surveys;
- Standard best practice pollution prevention measures.

8.11.7. Subject to a greater separation buffer of 10m to watercourses in general, 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 arising from the proposed development.

8.11.8. The proposed development would benefit from an invasive species and biosecurity plan to treat and manage any invasive species on site and an agreed method statement for watercourse crossings including cables crossing. I consider it appropriate to attach a condition in this regard to any grant of permission that may issue.

8.12. **Flood Risk – NEW ISSUE**

8.12.1. The Broadmeadow_010 watercourse (referred to as Sutherland Stream and Ballybin Stream in the application) flows through the site, from the northwest corner to the southeast corner and is culverted under the Ballybin Road and continues eastwards to the Malahide Estuary, c. 15km downstream. Field drains, which vary in depth, bound many of the fields within the site. This issue is highlighted having regard to the proposed river crossings which are required as part of the development.

8.12.2. Based on the most recent available data, (www.floodinfo.ie) and the Meath County Development Plan 2021-2027 which included a Strategic Flood Risk Assessment (SFRA), I note that fluvial flooding is a source of risk along this section of the Broadmeadow River and is identified as Flood Risk A – high probability of flooding i.e., more than 1% probability annual exceedance probability (AEP) event. According to the SFRA the flood extent is confined to the stream channel. No overtopping of the channel is predicted to occur. I note that the OPW are currently reviewing the flood risk information relating to Ashbourne, within which the site is located. I note too that the Broadmeadow River, including the section that flows through the site

(i.e., both the Sutherland Stream and Ballybin Stream) forms part of the arterial drainage scheme (ADS) maintained by the OPW.

- 8.12.3. A Flood Risk and Drainage Impact Assessment (FRA) was prepared by Neo Environmental and accompanies the application. The report states that according to the CFRAM and SFRA maps there is no risk of fluvial flooding. This statement is at odds with my findings at section 8.12.2 above, that the Broadmeadow River, including the section which flows through the site is in Flood Zone A.
- 8.12.4. Having regard to the fact the watercourses on site are maintained by the OPW for arterial drainage and there is no over-topping of the watercourse banks, the FRA considers that there is no risk of fluvial flooding from the watercourse within the application site and considers that the site is contained within flood zone C. The FRA considers that the panels and access tracks can be classed as 'Water Compatible Development' whilst the substation and inverters can be classed as 'Highly Vulnerable Development'.
- 8.12.5. In respect of drainage, surface water run-off is proposed to be managed via six soakaway channels which it is stated will provide a total storage volume of 30.3m³ in excess of a calculated need of 12m³. Water falling from the solar panels is expected to infiltrate to the soil underneath while the access tracks are to be unpaved, with the use of temporary swales or similar to collect run-off, which will discharge to ground through percolation areas. During construction stage, hardstanding run-off will be directed to a swale.
- 8.12.6. Save for the three watercourse crossings and laying of cables, no development is proposed in areas identified as being at flood risk. A 10m buffer is required by Meath County Council Water Services Department to remain free of development from the arterial drainage watercourses. It appears that two new bridges are proposed over the Broadmeadow River between fields 7 and 8, and between fields 8 and 9. An existing crossing/culvert over the Broadmeadow River, which it appears is to be improved, is located between fields 2 and 4. No submission was received from the OPW. No details or specifications of the watercourse crossings are provided.
- 8.12.7. I note the report prepared by Meath County Council's Environment Department, dated 18th November 2021, wherein it is stated that the proposed development site is in Flood Zone C, referencing the OPW CFRAMS flood mapping and Meath County

Council's Mapinfo flood mapping data i.e., in an area at a low risk of flooding. The report further states that the OPW PFRA flood mapping indicates a risk of pluvial flooding on the site. The report concludes that there is no objection, from a flooding perspective, subject to conditions. I note that the request for further information which issued from Meath County Council did not raise flood risk issues.

8.12.8. The Board will note my findings at section 8.12.2 above, that the section of the Broadmeadow River which flows through the site is in Flood Zone A and that according to the Meath County Development Plan 2021-2027 SFRA this is confined to the river channel itself. I note that a buffer of 10m is required along the Broadmeadow River. Other than watercourse crossings and underground cabling, no works are proposed to the Broadmeadow River or in the flood zone. I note too that any river crossings of the Broadmeadow River require OPW consent under a separate process.

8.12.9. Notwithstanding that the flood zone is confined to the river channel, in the absence of drawings or details regarding the proposed watercourse crossings and noting the separate OPW consent process, it is considered necessary to include a condition, in the event of a grant of permission, requiring that detailed drawings of the proposed crossings are submitted to the planning authority.

8.12.10. Conclusion

8.12.11. Subject to conditions, including a 10m buffer to the OPW maintained watercourses and the fact the watercourse crossings will be the subject of a separate OPW consent procedure, and noting that flood risk is confined to the channel of the Broadmeadow River as per the Meath County Development Plan 2021-2027 Strategic Flood Risk Assessment and noting the limited extent of impermeable ground cover and proposed drainage measures, I am satisfied that the proposed development will not lead to or contribute to flood risk in the area.

9.0 Appropriate Assessment

9.1. Appropriate Assessment Screening

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

9.1.2. The requirements of article 6(3) of the Habitats Directive, as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act, 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive;
- Screening the need for appropriate assessment;
- The Natura Impact Statement and associated documents;
- Appropriate assessment of implications of the proposed development on the integrity each European site.

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

9.1.4. 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.

9.1.5. 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).

9.1.6. Background on the Application

9.1.7. The applicant submitted an 'Appropriate Assessment Screening' report, prepared by Neo Environmental, dated 16th February 2021, as part of the planning application. The applicant provides a description of the proposed development and identifies European Sites within a possible zone of influence of the development. Associated reports were also submitted with the planning application such as a Construction and Environmental Management Plan (CEMP) and an Ecological Impact Assessment (EclA).

- 9.1.8. The applicant's AA Screening Report concluded that no significant effects will occur for the qualifying habitats and species of the SAC and SPA and will not lead to significant adverse impacts upon Natura 2000 sites and therefore will not affect the integrity of these Natura 2000 sites.
- 9.1.9. The applicant submitted a Natura Impact Statement (NIS) in response to the appeal. The NIS was prepared by Neo Environmental and is dated 8th April 2022. The NIS was not accompanied with a revised or updated AA Screening Report, therefore this screening determination is carried out *de-novo*.
- 9.1.10. Screening for Appropriate Assessment – Test of likely significant effects
- 9.1.11. 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).
- 9.1.12. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.
- 9.1.13. Brief description of the development
- 9.1.14. The applicant provides a description of the project on pages 6 of the AA Screening Report and elsewhere e.g., section 4 of the Planning Statement. In summary, the development comprises:
- A 10 year permission, with an operational life of 35 years, is sought for a solar PV development with a total site area of 23.58 hectares with a maximum electricity output of 13.5 MW and includes:
 - solar panels mounted on steel support structures, with a maximum height of c. 3.2m, associated cabling (c.2675m) and ducting;
 - 5 no. MV power stations, each measuring c.6.06m x 2.44m x 2.9m, with a maximum height of c. 3.2m;
 - 1 no. substation, measuring 96m sq;
 - 1 no. temporary construction compound, measuring 3,000m sq;
 - access tracks, c.5,600m sq; hardstanding area;

- boundary security fencing and security gates;
- 3.5m high 19 no. infra-red lighting and CCTV camera units;
- landscaping and ancillary works;
- 2 no. new watercourse crossings.

9.1.15. The development site is briefly described on page 11 of the Planning Statement and in more detail in the Ecological Impact Assessment. The site is described as agricultural land, currently used for grazing. The lands are relatively flat land and fields are generally well contained by mature hedgerows. Ditches were generally dry at the time of my site inspection, with the notable exception of the Broadmeadow River (Sutherland Stream) which transects the site flowing from the northwest corner to the southeast corner where it flows, culverted, under the Ballybin Road and continues flows into the Malahide Estuary. A tributary of the Broadmeadow (also known as the Ballybin Stream bounds part of the site to the south before joining with the Broadmeadow / Sutherland Stream on site.

9.1.16. 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).

9.1.17. Submissions and Observations

9.1.18. Following the receipt by the Board of the NIS, the applicant submitted revised public notices in accordance with section 142(4) of the Planning and Development Act, 2000, as amended, notifying the public that a NIS was submitted. No submission or observations were received.

9.1.19. European Sites

9.1.20. The development site is not located in or immediately adjacent to a European site. The closest European sites are:

- Malahide Estuary SAC, site code 000205, c.15.5km to the south-east.
- Malahide Estuary SPA, site code 004025, c.15.8km to the south-east.
- Rogerstown Estuary SAC site code 000208, c.15.8km to the east.
- Rye Water Valley Carton SAC c. 15.5km to the south-west.

9.1.21. I present a summary of European sites that occur within a possible Zone of Influence (ZoI) of the proposed development in Table 9-1 below. Where a possible connection between the development and a European site has been identified, these sites are examined in more detail. The possibility of potential impact to each site is considered. Potential impacts to Rye Water Valley/Carton SAC and Rogerstown SAC were discounted because of the absence of any connectivity between the European site and the elements of the proposed development. There is a potential hydrological and ornithological connectivity between the proposed solar farm development and the Malahide Estuary SAC and SPA via the Broadmeadow River which flows into the estuary. Table 9-1 indicates a summary table of European sites within a possible zone of influence of the proposed development.

Table 9-1 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
Rye Water Valley/Carton SAC (001398)	Petrifying springs with tufa formation (Cratoneurion) [7220] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	c. 15.5km	None	No (due to separation distance and lack of connectivity)
Malahide Estuary SAC (000205)	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	c. 15.5km	Hydrological via the Broadmeadow River (also known as the Sutherland Stream and the Ballybin Stream) which traverse the	yes

	<p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p>		<p>site and flows into the Malahide Estuary.</p>	
<p>Malahide Estuary SPA (004025)</p>	<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Pintail (<i>Anas acuta</i>) [A054] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Wetland and Waterbirds [A999]</p>	<p>c. 15.9km</p>	<p>Hydrological, via the Broadmeadow River which dissects the site and flows into the Malahide Estuary. Ornithological connectivity.</p>	<p>Yes</p>
<p>Rogerstown Estuary SAC (000208)</p>	<p>Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p>	<p>c. 15.8km</p>	<p>None</p>	<p>No (due to separation distance and lack of connectivity)</p>

	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]			
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9.1.22. Identification of Likely Effects

9.1.23. The conservation objectives of the Malahide Estuary SAC – Conservation objectives are set out in the Conservation Objectives series Malahide Estuary SAC 000205 documents published by the National Parks and Wildlife Service (NPWS). They are: to maintain the favourable conservation condition of:

- mudflats and sandflats not covered by seawater at low tide;
- Salicornia and other annuals colonising mud and sand;
- Mediterranean salt meadows; and

to restore the favourable conservation condition of:

- Atlantic salt meadows;
- shifting dunes along the shoreline with *Ammophila Arenaria*;
- fixed coastal dunes with herbaceous vegetation.

9.1.24. The conservation objectives of the Malahide Estuary SPA are set out in the Conservation Objectives series Malahide Estuary SPA 004025 documents published by the National Parks and Wildlife Service (NPWS). They are to maintain the favourable conservation condition of the 14 no. bird species listed in Table 9-1 and to maintain favourable conservation condition of the wetland habitat.

9.1.25. Likely effects of the proposed solar farm on the European sites are considered in section 6 of the AA Screening Report, and the NIS. The AA Screening Report and the NIS notes in a general way that aquatic systems and the species/habitats which are dependent on these systems are sensitive to pollution/contamination of surface waters as a result of contaminants entering a body of surface water or groundwater. The effect of silt, bentonite (very fine silt) cement or concrete wash water and hydrocarbons are considered to have an adverse effect on aquatic environment. These contaminants would reduce water quality, clog fish gills, covers aquatic plants, impacts invertebrates, reduces prey and leads to a degradation of habitat. They can also change the chemical balance of water and can be toxic to fish and other wildlife.

- 9.1.26. 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.
- 9.1.27. I note the NIS refers to 'measures' as 'mitigation for surface water management', including SuDS required in light of the Water Framework Directive and associated water quality Regulations. I am satisfied that the possible measures listed in the NIS e.g., side casted soil to be kept a minimum of 20m from any watercourse; prevention of silt entering the aquatic environment; silt traps at drainage ditches; control of cement wash; no concrete use within immediate vicinity of a watercourse; appropriate storage of fuels and sewage storage and collection facility/process are standard environmental management controls which are identical and/or very similar to those that are set out in the OCEMP.
- 9.1.28. The Malahide Estuary SAC and SPA are located c. 15.5 – 15.9km east of the proposed development. The site is hydrologically connected to the SAC and SPA via the Broadmeadow River which dissects the site and flows into the Malahide estuary.
- 9.1.29. No direct effects would occur through land-take fragmentation of habitats given the distance of the site from the SAC and SPA. I note that while watercourse crossings are proposed and there is a hydrological connection to the SAC and SPA, having regard to the distance to the SAC, c. 15.5km and the SPA, c. 15.9km from the proposed development, the findings of the extended phase 1 habitat survey in January 2021 where no qualifying species were recorded, and having regard to the nature of the land being actively agriculturally managed, the abundance of improved grassland of similar habitat in the 15km between the application site and the SAC and the SPA I consider that there is no risk of disturbance to, or displacement of, qualifying species.
- 9.1.30. 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.

9.1.31. 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, it is with the added benefit of further dilution from additional tributaries, i.e., the Fairyhouse Stream and Dunshaughlin Stream which feed into the Broadmeadow River. In addition, permitted solar farm developments in the vicinity are subject to appropriate surface water management conditions, where necessary.

9.1.32. Mitigation Measures

9.1.33. 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.

9.1.34. Screening Determination

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 would not be likely to give rise to significant effects on European Site No. 000205 (Malahide Estuary SAC) or 004025 (Malahide Estuary SPA), or any other European site, in view of the site's Conservation Objectives, and Appropriate Assessment and the submission of a NIS (notwithstanding that a NIS was submitted with the response to appeal) is not required.

9.1.35. This determination is based on the following:

- The distance of the proposed development from the European Sites;
- The findings of the extended phase 1 habitat survey in January 2021 where no qualifying species were recorded on the development site;
- The abundance of improved grassland of similar habitat to the development site in the 15km between the application site and the Malahide Estuary SAC and the SPA;
- The surface management system proposed on site being largely infiltration to ground given the limited surface area of proposed structure, and;
- The absence of in-combination effects of similar developments downstream of the development site on the Malahide Estuary SAC and SPA.

10.0 Recommendation

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

11.0 Reasons and Considerations

Having regard to:

- i. European, national, regional, and county level support for renewable energy development including:
 - 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
- ii. the nature, scale, and extent of the proposed development,
- iii. the documentation submitted with the application, including the Natura Impact Statement (received by the An Bord Pleanála on the 12th April 2022), the Planning Statement and appendices, and the Outline Construction and Environmental Management Plan,
- iv. the nature of the landscape and absence of 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 effect on any European site or 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.

12.0 Conditions

1	<p>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 14th day of January 2021, and further particulars submitted to An Bord Pleanála on 12th day of April 2022 except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.</p> <p>Reason: In the interest of clarity.</p>
2	<p>The period during which the development hereby permitted may be carried out shall be 10 years from the date of this order.</p>

	<p>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.</p>
3	<p>(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.</p> <p>(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.</p> <p>(c) On full or partial decommissioning of the solar farm, or if the solar farm ceases operation for a period of more than one year, the solar arrays, including foundations/anchors, and all associated equipment, shall be dismantled and removed permanently from the site. The site shall be restored in accordance with this plan and all decommissioned structures shall be removed within three months of decommissioning.</p> <p>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.</p>
4	<p>This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.</p> <p>Reason: In the interest of clarity.</p>

5	<p>All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Technical Appendices, including the Ecological Impact Assessment, the Outline Construction and Environmental Management Plan, the Archaeology and Architectural Heritage Impact Assessment and Flood Risk and Drainage Impact Assessment and other particulars submitted with the application, shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.</p> <p>Reason: In the interests of clarity and of the protection of the environment during the construction and operational phases of the development.</p>
6	<p>(a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.</p> <p>(b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the road.</p> <p>(c) Cables within the site shall be located underground.</p> <p>(d) The battery storage containers and power stations shall be dark green or grey in colour.</p> <p>Reason: In the interests of clarity and of visual amenity.</p>
7	<p>Prior to the commencement of development, details of the structure of the security fence showing provision for the movement of mammals shall be submitted for prior approval to the planning authority. This shall be facilitated through the provision of mammal access gates every 50 metres along the perimeter fence and in accordance with standard guidelines for provision of mammal access (NRA 2008).</p>

	<p>Reason: To allow wildlife to continue to have access across the site and in the interest of biodiversity protection.</p>
8	<p>Prior to commencement of development, an archaeological Impact Assessment of the site shall be completed as follows:</p> <p>(a) a suitably-qualified archaeologist shall be employed to carry out an archaeological assessment of the development site. The assessment will include the results of an archaeological geophysical survey. No sub-surface work should be undertaken in the absence of the archaeologist without his/her express consent.</p> <p>(b) The archaeologist shall carry out any relevant documentary research and inspect the site. Test trenches may be excavated at locations chosen by the archaeologist (licensed under the National Monuments Acts 1930-2004), having consulted the site drawings.</p> <p>(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.</p> <p>(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.</p> <p>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.</p>

9	<p>(a) The landscaping scheme shown on drawing numbers NEO00780_0251_B, NEO00780_0261_B, NEO00780_0271_C, NEO00780_0281_C, NEO00780_0291_E, NEO00780_0301_E as submitted to the planning authority on the 14th day of January 2022 shall be carried out within the first planting season following commencement of development.</p> <p>(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 30th of September 2021.</p> <p>(c) 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.</p> <p>Reason: In the interest of residential and visual amenity.</p>
10	<p>The construction of the development shall be managed in accordance with a Construction 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:</p> <p>(a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;</p> <p>(b) Location of areas for construction site offices and staff facilities;</p> <p>(c) Details of site security fencing and hoardings;</p> <p>(d) Details of on-site car parking facilities for site workers during the course of construction;</p> <p>(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;</p>

	<p>(f) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;</p> <p>(g) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;</p> <p>(h) 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;</p> <p>(i) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;</p> <p>(j) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains;</p> <p>(k) Hours of construction.</p> <p>(l) Disturbance of riparian habitats should be minimised. Riparian vegetations should be retained in as natural stated as possible at all times.</p> <p>(m) Short-term storage and removal/disposal of excavated material must be considered and planned to minimise pollution including drainage from topsoil storage area to be directed to a settlement area as necessary.</p> <p>(n) Details of an invasive species and biosecurity plan to treat and manage invasive species on site.</p> <p>A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.</p> <p>Reason: In the interest of amenities, public health, and safety.</p>
11	<p>(a) 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;</p>

	<p>(b) Details including a written specification and drawings of an appropriate scale of the proposed watercourse crossings shall be submitted for the written agreement of the planning authority prior to commencement of development;</p> <p>(c) 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;</p> <p>(d) Any gates at watercourse crossings shall not impact the flow of water in a 1 in 100 year or 1 in 1000 year flood event. Details of all such gates shall be submitted to the planning authority prior to the commencement of development.</p> <p>Reason: In the interests of environmental protection and of preventing flooding.</p>
12	<p>(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 30th September 2021.</p> <p>(b) Any cable-laying crossings of watercourses shall subject to an agreed method statement with IFI. No deleterious material shall discharge to any watercourse.</p> <p>Reason: In the interest of public health and environmental protection.</p>
13	<p>All road surfaces, culverts, watercourses, verges, and public lands shall be protected during construction and, in the case of any damage occurring, shall be reinstated to the satisfaction of the planning authority at the developer's expense. Prior to commencement of development, a</p>

	<p>road condition survey shall be carried out to provide a basis for reinstatement works. Details in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.</p> <p>Reason: In order to ensure a satisfactory standard of development.</p>
14	<p>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.</p> <p>Reason: To ensure satisfactory reinstatement of the site.</p>
15	<p>The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.</p>

	<p>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.</p>
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Alaine Clarke

Planning Inspector

23rd August 2022