



An
Bord
Pleanála

Inspector's Report ABP 311831-21

Development	A 10-year permission for the construction of, and a 40-year operation and subsequent decommissioning of a 265.8 hectare solar farm.
Location	Kilrue. Fleenstown Great, Peacockstown & Harlockstown Townlands. Kilbride. Co.Meath.
Planning Authority	Meath Co Council.
Planning Authority Reg. Ref.	21/837.
Applicant(s)	Kilrue Solar Farm Ltd.
Type of Application	Permission.
Planning Authority Decision	To Grant Permission.
Type of Appeal	Third Party
Appellant(s)	Lorna Lyons Eco Advocacy CLG Eanna Henderson
Observer(s)	Cllr Alan Tobin

Date of Site Inspection

April 7th, 2022

Inspector

Breda Gannon.

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1.0 Site Location and Description

- 1.1. The site is located c.4 km southeast of Ratoath and c.3 southwest of Ashbourne in Co Meath. It abuts the M2 motorway to the north and is bounded on the north-east and west sides by Baltrasna Road and Kilbride Road (L1007) respectively. The site consists of a single parcel of land extending to 265.8 hectares within a working farm which is currently used as tillage and pastureland. There is a public road that runs through the site from the southern site boundary past the farmyard (Kilrue Farm) located centrally within the site, which then branches off as Brennan's Lane to the north-west and Harlockstown Lane to the north-east.
- 1.2. The site is generally flat but slopes very gradually to the north. It consists of a number of fields with mature hedgerows and treelines along field boundaries. An area of mature native woodland dominated by ash occurs within the north-western section of the site. The Fairyhouse Stream cuts through the north western side of the site and drainage channels are a common feature along the base of the field boundaries. The site is largely bounded by agricultural land, in a mix of both pasture and arable uses to the north-west, west and south. The southwestern boundary abuts the rear of properties that front onto Kilbride Road. Residential properties are concentrated in Fleenstown to the east and along Kilbride Road to the south and southwest. There is a cluster of four houses close to the farmyard within the site.
- 1.3. Fairyhouse Race Course lies to the west and the closest part of Dublin Airport is approximately 8.5km from the site.

2.0 Proposed Development

- 2.1. The development as described in the public notices seeks the development of a 265.8 hectare solar farm consisting of a series of ground mounted solar photovoltaic (PV) panels, mounted on steel support structures and in some areas of potential archaeological remains on concrete blocks/shoes, together with 58 no. electrical transformer enclosures, a temporary construction compound, underground cabling, inverters, CCTV poles and cameras, deer type security/boundary fencing, landscaping and biodiversity measures and all associated ancillary development works for the purposes of generating renewable energy electricity.

- 2.2. The development would comprise 3,990 strings of photovoltaic panels, each string would contain between 25 and 125 panels resulting in an anticipated total of 410,575. Each panel would be approximately 2,450mm in length, have a width of 1,135mm and a depth of 40mm. The panels would be typically mounted in double rows and the panels will be not more than 1.8m above ground level. A total of 58 no. transformers would be provided to convert the low voltage output from the inverters to high voltage suitable for feeding into the grid. These units would be located throughout the site. In addition to these units, an onsite electricity station would be required. This does not form part of the current application and will be submitted directly to the Board as a Strategic Infrastructure Development along with the proposed grid connection route from the site to Corduff ESB Networks substation, c 6.6k m to the south west.
- 2.3. The temporary construction compound would be located at the northern end of the site adjacent to the M2 Motorway and Harlockstown Lane. The perimeter of the site would be secured by a 2m high deer fence and infrared motion activated CCTV. The CCTV camera poles would have a maximum height of 2.5m and would be constructed of galvanised steel, colour coated green. The proposed development would be accessed via Harlockstown Lane with the access/egress extending north to the R125 and then east to the M2. It is proposed to access areas within the proposed solar farm site via existing access tracks and no roads/access tracks will be created.
- 2.4. The application is supported by the following reports:
- Planning Statement incorporating Environmental Considerations
 - Screening for EIA.
 - Statement of Community Consultation.
 - Landscape and Visual Impact Assessment
 - Flood Risk Assessment
 - Transport Management Plan
 - Noise Assessment
 - Glint and Glare Assessment

- Archaeological Impact assessment
- Ecological Impact Assessment
- Natura Impact Statement
- Biodiversity Management Plan
- Landscape Management Plan.
- Construction Environment Management Plan

2.5. Further information on the application was requested on the application on June 28th 2021, on matters relating to flooding, glint and glare, lighting and the issues raised by objectors. The response, which was received on July 7th 2021, addressed these matters to the satisfaction of the planning authority and will be considered in more detail below in the assessment section of this report.

3.0 Planning Authority Decision

3.1. Decision

The planning authority issued a Notification of Decision to grant permission for the development on October 6th 2021, subject to 23 no. conditions. Apart from standard type engineering and construction conditions, the decision includes the following conditions of note:

Condition No 4: Requires that a site-specific flood risk assessment and justification test be submitted which accurately identifies potential flood zoned A, B and C throughout the site. Where essential infrastructure (solar panels, inverter/transformer station) are proposed to be located in flood zones A and B they shall be removed from the proposed development.

Condition No 5: Requirements to mitigate glint and glare.

Condition No 6: Cash deposit of €55,000 or other security to secure the satisfactory completion of any repairs to the public roads identified following completion of the post construction road survey.

Condition No 10: Requires the submission of a Construction Environmental Management Plan (CEMP) and a Waste Management Plan (WMP) prior to commencement of development. It requires that the enhancement and mitigation measures set out in the Ecological Impact Assessment report be fully implemented, to include full pre-commencement site surveys for badger, bats, breeding birds and other species referred to in the plan. It sets out requirements for the control of dust and noise/vibration emission levels and for fuel, hydrocarbon, chemical management and storage during construction and the implementation in full of glint and glare mitigation measures.

Conditions 15 - All ecological avoidance measures to be implemented in full. A report on the implementation of these measures to be submitted to the Planning Authority.

Condition 17 – Decommissioning not later than 35 years from date of grant.

Condition 18 – Permission shall not be construed as any form of consent or agreement to a connection to the national grid

Condition No 19 – Installation of CCTV.

Condition No 20 - Implementation of the measures outlined in NIS.

Condition No 21 - Archaeological monitoring.

3.2. **Planning Authority Reports**

3.2.1. **Planning Reports**

The Planning Officer's report of October 5th, 2021 refers to the further information submitted. It notes that a revised Site Specific Flood Risk Assessment was submitted which was reviewed by the Environmental Department. Notwithstanding the issues raised, it is considered, having regard to, the nature and scale of the development, the extent of the site located within Flood Risk B, the strategic nature of the proposed development and the significant contribution it would make towards National Renewable Energy Targets, a prudent approach to the issue of flood risk should be adopted. This would include the attachment of conditions inhibiting any potential development within Flood Zones A and B and the preparation of a further

site-specific flood risk assessment given the relatively small extent of potential flooding within the overall site.

The updated Glint and Glare Assessment was referred to the Transportation Department and it was considered that potential impacts of glint and glare on road users could be addressed by conditions. The applicant response confirmed that the only source of artificial lighting would be associated with a temporary construction compound.

Regarding the issues raised by the OPW, it is considered that these can be adequately dealt with by condition. The applicant's response to the third party submissions was considered acceptable.

The Planning Officer' concluded that the proposed development (entire project), by itself or in combination with other plans and developments in the vicinity, subject to the mitigation measures proposed in the NIS would not be likely to have a significant effect on European sites.

A mandatory EIAR is not required for the subject development, nor is it considered a sub-threshold development for the purposes of Schedule 7 and will not on its own or cumulatively with other projects result in significant effects on the environment.

3.2.2. **Other Technical Reports**

The **Water Services** report of May 27th 2021, states that the development as proposed broadly meets the requirements of Meath Co. Council Water Services Section with regard to orderly collection, treatment and disposal of surface water. Conditions are recommended in the event of a grant of permission.

The **Environment Department** in their report of October 5th 2021, notes that the site is partially located within Flood Zone B where there is a medium risk of flooding. There are also a number of 1% AEP Pluvial Flood Zones indicated within the development site.

The Site-Specific Flood Risk Assessment submitted by the applicant has been reviewed within the context of the Planning System and Flood Risk Management Guidelines. The assessment is not sufficiently detailed to enable an appropriately detailed assessment of flood risk associated with the subject site as required by the guidelines. The proposed development does not have sufficient regard to and is

therefore not in compliance with policies WS POL 29 and WS POL 32 of the Meath County Development Plan (as varied). From a flood risk perspective, a grant of permission cannot be recommended.

The applicant has proposed a two-stage solution to address flooding in the general area. The first stage involves limiting flood waters leaving the site to less than the 1 in 3 year flood volume to ensure that flood waters do not exacerbate flooding on neighbouring lands. The applicant is committed to implementing and maintaining this solution until such time as the second stage is fully implemented. The applicant has not provided any further detail on the proposed attenuation or drainage capacities.

The second stage involves a flood alleviation scheme in the general area which falls outside the development boundary. To enable such a scheme to proceed would need a separate planning application. The absence of detailed analysis of OPW channels as requested does not allow for an informed decision to be made on the flood risk associated with the proposed site. The applicant has not clearly set out the flood zones on the site and has not applied the Justification Test as required.

The Environment Department **Scientific Officer's** report of June 23rd, 2021 states that the predicted noise levels at NSR;'s as identified in the Environment Report have not included a 2dB rating penalty to account for the 'just perceptible tone' from the converters and that the applicant should provide vibration dampers to suppress the impact of any tonal noise. Conditions are recommended reading noise levels during the operational stage and measures to protect the environment during construction (waste, dust, biodiversity, noise/vibration, use and storage of hydrocarbons, oil, cements etc).

The Transportation Department in their report of September 14th, 2021 notes that potential for glint and glare effects on road users on Harlockstown Lane (L-10073) and recommends conditions to mitigate these effects.

It is recommended that passing bays are provided to facilitate HGV traffic and that pre and post construction surveys be carried out, with a security provided towards satisfactory completion of any repairs to the public road network.

The Chief Fire Officer raised no objection in principle to the development.

3.3. Prescribed Bodies

The **DAU** in their report of June 3rd 202, note the presence of significant archaeological remains on the site. It is recommended that the developer engage a suitably qualified archaeologist to co-ordinate, oversee and implement the mitigation measures recommended in the Archaeological Report.

Dublin Airport Authority (DAA) notes that the glint and glare assessment submitted with the application determined that the proposed development has the potential to impact aviation related receptors. It requests that a condition be attached to any planning permission requiring that the applicant implement screening measures to minimise the impacts arising.

The **OPW** notes that the site contains a number of OPW maintained drainage channels and is responsible for Flood Risk Management on these channels. In order for the OPW to carry out maintenance works on the channels, a 10m strip along the edge of the channel/river measured out from the top bank edge of the channel shall be maintained, with a specific vehicular access, which shall not be planted or paved in a way that would prevent access for maintenance.

The site contains channels with benefiting lands and this could be liable to flooding in extreme weather events. New culver/bridges on any watercourse or changes to existing structures or drainage channels will require section 50 consent from the OPW.

The **Health & Safety Authority** had no observations to make on the application noting that the application appears outside the scope of the Regulations and there are no notified COMAH establishments within the area of the proposed development.

3.4. Third Party Observations

A number of observations were submitted to the planning authority which raised a plethora of issues which are summarised as follows:

- Lack of environmental impact assessment
- Lack of national guidance and policy
- Alternative renewable energy sources
- Scale of proposed development

- Overprovision of solar farms in the area and cumulative impacts.
- Loss of agricultural land
- Lack of public consultation
- Landscape/visual impacts
- Traffic impacts
- Ecological impacts and appropriate assessment
- Glint and glare, aviation impacts
- Increased flood risk
- Tourism, leisure and recreational impacts
- Archaeological impacts
- Impacts on property values.
- Community fund
- Health and Safety
- Residential amenity

4.0 Planning History

The planning authority report notes that there is no relevant recent planning history relation to the site, with the exception of small-scale applications for alterations/change of use to agricultural buildings on Kilrue Fram.

ABP 309024-20: A pre-application consultation request is currently before the Board in respect of a proposed connection to the connection of the Kilrue Solar Farm to the national grid at the Corduff 22 kV substation.

ABP 301023 – 18: The Board upheld the decision of the planning authority (RA170644) and granted planning permission for a solar farm development (c.95 ha) to the southwest of the appeal site in the townlands of Fidorfe, Grange and parts of Ratoath Manor.

ABP 301151-18 – The Board upheld the planning authority’s decision to grant permission for a solar farm (54 ha) at Harlocktown. Co Meath. (RA/170479). The site lies immediately north of the appeal site.

ABP 311066 -21: A decision is pending on an appeal against the planning authority’s decision to grant permission (21/180) for the development of a solar farm (c 82 ha) on lands at Mullinam, Paddock & Loughlinstown, Ratoath, Co Meath. The site is located to the west of the site.

5.0 Policy Context

5.1. National Policy

Climate Action Plan 2021

- 5.1.1. The recently adopted plan commits Ireland to a legally binding target of net-zero greenhouse gas emissions by 2050, with a 51% reduction by 2030. The plan sets out indicative ranges of emissions reductions for each sector of the economy by 2030. Among the most critical measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030, including a mix of offshore/onshore wind and solar PV.

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

- 5.1.2. A Government White Paper entitled ‘*Ireland’s Transition to a Low Carbon Energy Future 2015-2030*’ was published in December 2015. It was developed to guide policy and actions that the Government intends to take in the energy sector up to 2030 and reaching out to 2050, to ensure a low carbon future that maintains Ireland’s competitiveness and ensures a supply of affordable energy.

It acknowledges that a radical transformation of Ireland’s energy sector is required to meet climate change objectives. A low carbon future would involve, inter alia, greater use of electricity from renewable sources of which the country has a plentiful supply and greater use of electricity for heating and as a fuel for transport.

It acknowledges that the deployment of solar photovoltaic technology has the potential to increase energy security, contribute to our renewable energy targets and support economic growth. It brings a range of benefits including relatively quick construction and a range of deployment options.

National Mitigation Plan 2017

- 5.1.3. The National Mitigation Plan was published in July 2017 as required under the Climate Action and Low Carbon Development Act 2017. It outlines a range of measures to lay the foundations for transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050. It recognises that Ireland has abundant, diverse and indigenous renewable energy resources which will be critical to decarbonising our energy system, including electricity generation. It acknowledges that deployment of solar PV in Ireland has the potential to contribute to our renewable energy targets.

Project Ireland 2040 - The National Planning Framework

- 5.1.4. Project Ireland 2040 - The National Planning Framework (NPF) which was published in 2018 is a strategic plan to guide development and investment out to 2040. It is envisaged that the population of the country will increase by up to 1 million by that date and the strategy seeks to plan for the demands that growth will place on the environment and the social and economic fabric of the country.

The Plan sets out 10 goals, referred to as National Strategic Outcomes. One of the key goals (National Strategic Outcome 8) is that of ‘Transition to a Low Carbon and Climate Resilient Society’. It acknowledges that Ireland’s energy policy is focussed on the pillars of sustainability, security of supply and competitiveness.

“In the energy sector, transition to a low carbon economy from renewable sources of energy is an integral part of Ireland’s climate change strategy and renewable energies are a means of reducing our reliance on fossil fuels”.

It is an objective that:

“40% of our electricity need will be delivered from renewable sources by 2020 with a strategic aim to increase renewable deployment in line with EU targets and national policy objectives out to 2030 and beyond”.

National Policy Objective 55 states:

“Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050”.

5.2. Regional Policy

- 5.2.1. The Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019-2031 supports the transition to a low carbon, circular and climate resilient region. It recognises the need to shift from reliance on fossil fuels to a more diverse range of low and zero-carbon sources including renewable energy from onshore wind, bioenergy, solar and offshore energy in order to decarbonise the energy sector.
- 5.2.2. Objective RPO 7.35 states that the EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy could be developed to support delivery of projects within the Strategic Energy Zones.

5.3. Local Policy

- 5.3.1. The Meath County Development Plan 2021-2027 was adopted on September 22nd, 2021 and came into effect on November 3rd 2021. The site is located on unzoned lands outside the settlement boundary for Ashbourne and Ratoath, which are the closest settlements to the site
- 5.3.2. The Plan is supportive of the production of electricity from renewable sources including solar power.

Relevant policies and objectives include:

INF POL 34: To promote sustainable energy sources, locally based renewable energy alternatives, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity, natural and built heritage, residential or local amenities.

INF POL 35: To seek to reduce greenhouse gas emissions through energy efficiency and the development of renewable energy sources utilising the natural resources of the County in an environmentally acceptable manner consistent with best practice and planning principles.

INF OBJ 39: To support Ireland’s renewable energy commitments outlined in national policy by facilitating the development and exploitation of renewable energy sources such as solar, wind, geothermal, hydro and bio-energy at suitable locations within the County where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities so as to provide for further residential and enterprise development within the county.

5.4. Natural Heritage Designations

5.4.1. The appeal site is not located in or adjacent to any European Site, Natural Heritage Areas or proposed Natural Heritage Areas.

5.5. Cultural Heritage Designations

5.5.1. The site contains one RMP (ME045-012), an enclosure, which represents a small mound within the site.

6.0 The Appeal

6.1. Grounds of Appeal

Three third party appeal have been received and the grounds of appeal are summarised as follows:

Lorna Lyons

- Gross over intensification of solar farms in the immediate locality.
- The ecological report on the lands is completely inaccurate.
- The access roads are unsuitable for the volume of construction/maintenance traffic that will be generated by the proposed development. The information provided by the applicant cannot be relied upon.
- The local community would be significantly impacted by the proposed development, most of whom are unaware of the proposed development. Covid restrictions meant that site notice did not alert the public to the

proposed development and no information was posted in local newspapers or local venues.

- Permission has been granted with the output capacity of the solar farm yet to be determined.
- Ratoath has the highest demographic of under 14-year-olds nationwide as per the 2016 census. Is committing this land on the borders of Ratoath to 3,700 acres of solar panels in the best interests of the town.
- Concerns regarding flood risk and lack of proper assessment.
- Impacts of glare.
- The CEMP and WMP are to be provided prior to commencement. How has Meath Co Council decided to grant planning permission without getting this information first.
- Meath Co Council have issued a decision to grant permission without considering concerns raised.
- Lack of independent studies.
- Failure to comply with European law.

6.2. **Eco Advocacy**

- 6.2.1. Raises concerns regarding the large development footprint and the use of a finite resource (agricultural land) for this purpose. The proposed development differs significantly from the current established land use and is not consistent with proper planning and sustainable development.
- 6.2.2. Raises issues regarding the sustainability of the proposal in terms of its use of finite agricultural land, the intermittent nature of solar energy, which is not dispatchable, capacity factors, Ireland's northerly latitude which is not efficient in terms of solar energy capture and the carbon footprint of the proposal. It is contended the provision of grants for the construction of wind/solar energy gives an unfair advantage and makes one form of renewable energy more attractive than another. Other more sustainable options should be considered e.g., deep-bore geothermal energy which is dispatchable, is not intermittent and is predictable. The precautionary principle

should be applied to avoid further depletion of finite resources and destruction of the landscape. It is noted that the MW capacity of the development is unknown.

- 6.2.3. Refers to the Planning Officer's report and lack of full considerations of the matters raised by objectors. Refers to recent High Court and European Court judgements. The requirement for a separate application for the grid connection is contrary to the principal established in *O Grianna & ORS-v-An Bord Pleanala*. Notes the lack of guidelines for solar energy and considers that further applications should be suspended until a full and proper analysis of solar energy is conducted. It is considered that Solar installations are developer led acting without national strategic planning and/or location selection strategy.
- 6.2.4. It is considered that the proposed development conflicts with the amenity, tourism potential and cultural heritage of the area, noting the designations Ireland's Ancient East and Boyne Valley. There is inadequate assessment of the visual impact on the many tourist attractions/public amenities in Co. Meath and adjoining counties. The destruction of agricultural land is contrary to the European Landscape Convention.
- 6.2.5. There will be significant traffic movements, giving rise to interference with public amenity and an increase in emissions to air. There will be noise and disturbance associated with the proposed development. There will be impacts on water from run-off and the possibility for metals/contaminants contained in the solar panels to enter groundwater.
- 6.2.6. Expresses dissatisfaction with the Appropriate Assessment and requests the Board to examine the NIS. Lists EIA, Habitats Directive and ECJ case law and request that the Board satisfy itself that the application complies with EU case law and Directives, including the SEA Directive.
- 6.2.7. Raises concerns regarding the plethora of solar installations that have been permitted in the counties adjacent to Dublin and provides a list of same in Co. Meath, Kildare and Co Wicklow.
- 6.2.8. The main stormwater issue is associated with concentrated discharge at the solar panel drip line, which must be carefully managed to prevent soil scoring erosion and protect stormwater management systems from becoming overwhelmed with excess run-off or sediment accumulation. Queries whether any analysis has been

undertaken of run-off from the panels or hazardous fluids within the panels and their potential to contain contaminants and impact on the water environment.

- 6.2.9. Further clarity is needed on the potential hazardous materials used in the production and solar farm infrastructure and impacts on the environment and animal/ human health. Solar panels release nitrogen trifluoride to the atmosphere which is significantly more damaging than carbon dioxide. Concerns regarding leaching of toxic chemicals during weather events and at decommissioning. Risk of fire, electrocution, arc faults that spark fires and arc flash leading to explosions.
- 6.2.10. There is evidence to suggest that solar farms threaten birds and sources of information are provided.
- 6.2.11. Questions where the aggregates for construction will be sourced and whether they will be from unauthorised quarries, eskers. The precise quantities of aggregate both in terms of concrete and material for approach roads should be established.
- 6.2.12. The carbon footprint of the proposal should be established including manufacturing, decommissioning, construction process.
- 6.2.13. Raises issues regarding planning enforcement.
- 6.2.14. Refers to alternative sources of renewable energy including deep-bore geothermal, the advantages associated with it, cites examples of where it is currently used and articles which support it.
- 6.2.15. The submission refers to examples where solar panels have been installed on roof spaces such as Lidl in Newbridge. Co Kildare which provides an alternative to the use of agricultural land.
- 6.2.16. It is concluded that in the interests of proper planning and development, that the appropriate course of action is to refuse permission for the development.

Eanna Henderson

- The concerns raised in the submissions have not been adequately addressed by the planning authority.
- Density and concentration of solar farms in the area and the loss of prime agricultural land, which could be used for food production.

- The lands in question are surrounded by major motorways and the proposed development deprives the area of possible future housing/commercial development in one of the fastest developing areas in the country.
- The proposal will blight the landscape.
- Impacts on habitats and birds. Due to the extent of site coverage, the biodiversity plan and wild life protection is not considered feasible.
- No consideration of the health and safety of local residents.
- Is not convinced that in deciding to grant planning permission for the development, that Meath Co Council has complied with EU Directives.
- The potential impact of a fire at the solar farm has not been considered.
- No specific benefits to the local community.
- Impacts on residential property values associated with the concentration of solar farms in the area.
- Glint and glare impacts on aviation.

6.3. Applicants Response

- 6.3.1. The applicant's response was received by the Board on November 29th, 2021. It provides a detailed response to each of the matters raised by the third parties, which is considered in more detail below in the assessment section of this report.

6.4. Planning Authority Response

- 6.4.1. The planning authority notes the grounds of appeal and is satisfied that all the matters raised were considered during the assessment of the planning application. The proposed development is considered to be consistent with the proper planning and sustainable development of the area.

6.5. Observations

Councillor Alan Tobin is fully supportive of the proposed solar farm and emphasises the benefits that will accrue from this development in terms of the following

- Clean renewable energy
- Community Benefit Fund

- Decarbonising our economy
- Benefits to the local environment.

7.0 Planning Assessment

7.1. Introduction

I have read the appeal file and I have inspected the surrounding area. I consider that the main issues that arise for consideration by the Board relate to the following:

- Principle of the development/Land Use
- Public Consultation
- Landscape and Visual Impacts
- Flood Risk
- Traffic and Access
- Biodiversity
- Cultural heritage
- Glint and Glare
- Noise
- Health and Safety
- Grid connection
- Environmental Impact Assessment

7.2. Principle of the development/Land Use

- 7.2.1. In terms of tackling climate change, reducing dependency on fossil fuels in energy production and achieving reduced greenhouse gas emissions, there is clear policy support at national and local level for renewable energy development, including solar energy.
- 7.2.2. Government policies identify the development of renewable energy as a primary contributor in implementing Ireland's climate change strategy and national energy policy. The role of renewables in electricity production is recognised at national level in the various plans and strategies published by Government including the recently published 'Climate Action Plan, 2021, 'Ireland's Transition to a Low Carbon Future 2015-2030' 'National Mitigation Plan 2017 and the 'National Planning Framework'.

- 7.2.3. An increase in the amount of renewable energy is also supported at regional and county level through the Regional Spatial and Economic Strategy and the Meath Co. Development Plan. Both emphasise the importance of energy to economic activity, the necessity to reduce dependency on fossil fuels in energy production and to increase the quantity of energy from renewables, including solar power.
- 7.2.4. While significant progress has been made, Ireland did not meet its 2020 renewable energy targets. The overall share of renewables stood at 13% which was below the country's EU binding target of 16%. The share of renewable electricity (RES-E) was c 39.1% and Ireland had a national target of 40%.¹The Climate Action Plan seeks to significantly increase the proportion of renewable electricity to up to 80% by 2030 including a mix of offshore/ onshore wind and solar power.
- 7.2.5. The proposed development with an expected output capacity of c 220MW will deliver an additional renewable energy source, which will help Ireland reach its targets. It will drive continued progress towards a low carbon economy, reduce dependency on fossil fuels and the decarbonisation of the electricity sector, in line with national, regional and local climate change strategies and energy policies. I accept that the proposed development is therefore acceptable in principle.
- 7.2.6. Concerns have been raised by the appellants regarding the location of the proposed development on prime agricultural land and the concentration of solar farms permitted in the locality.
- 7.2.7. I draw the attention of the Board to Section 4 of this report (Planning History) which provides details of planning permissions granted/pending decision in the vicinity of the site. Should planning permission be granted for this application, there is potential for c 500 hectares of agricultural land in this immediate area to be temporarily lost during the operational life of the solar farms.
- 7.2.8. There are no national planning guidelines for the assessment of solar farms, setting out a strategic approach to the location of solar farms on agricultural land or guidance on the likely cumulative effects of such developments on agriculture generally. While the Regional Spatial and Economic Strategy (RSES) which was published in 2019 has an objective to identify, in conjunction with local authorities Strategic Energy Zones for larger energy generating projects, no progress appears

¹ SEAI Energy in Ireland 2021 Report

to have been made on this to date, and no zones have been incorporated into the more recently adopted county development plan.

- 7.2.9. Dual objectives exist at national level for greater use of energy from renewable resources and for the sustainable development of agricultural land and the agricultural industry. Similarly at a local level the development plan seeks to support the containing viability of agriculture (RUR DEV SO 7) and facilitate renewable energy at suitable locations in the County (ED POL 19). It supports solar energy at suitable locations where such development does not have a negative impact on the surrounding environment (INF OBJ 39).
- 7.2.10. I accept that it would be preferable if solar farms were not located on good quality agricultural land, which as noted by the appellants could be used for alternative purposes including food production. The applicant notes the abundance of agricultural land within the county and the small fraction that will be used for to develop the proposed development. The proposed dual use of the site as a solar farm with sheep grazing will allow its use for agricultural purposes to continue. The applicant also notes that Ireland is a net exporter of food but has significant energy challenges in decarbonising its energy system and increasing its supply.
- 7.2.11. In the absence of any strategic guidance on the location of solar farms, I have considered the proposal on its individual merits. The site is located on unzoned lands with no specific objectives and the application adheres to the development management standards for solar energy set out in the development plan. I do not consider, having regard to the land area devoted to agriculture in the County, that the proposed development would seriously detract from the agricultural land resource and would, in principle be consistent with the policies for greater use of renewable energy and diversification of the rural economy.

I consider that the solar farm can be developed in this rural area without resulting in significant environmental effects and is therefore acceptable in principle in this location.

I note the issues raised in the appeals regarding alternative sources of renewable energy (geothermal) to meet climate change targets and alternative locations for solar farms (roof space) to avoid use of agricultural land, but the Board can only adjudicate on the merits of the proposal before it.

7.3. Public consultation

- 7.3.1. It is contended in the appeal submissions, that Covid restrictions meant that the site notice did not alert the public to the proposed development and no information was posted in local newspapers or local venues.
- 7.3.2. The response to the grounds of appeal documents the efforts made by the applicant to engage with the local community. In addition to statutory requirements, the applicant engaged with the elected Members in the Ratoath and Ashbourne Municipal Areas. A letter, map and brochure of the proposed development was issued to each member and this was followed by two online presentations and Questions and Answers sessions. The applicant hand delivered details of the proposal to all residents whose properties back onto the site and residents along the local roads closest to the site, a total of 43 properties. The applicant responded to any queries raised and provided maps to concerned residents showing the distance of dwellings from the solar panels.
- 7.3.3. I accept that the applicant has sought to actively engage with the local community, and the efforts made go well beyond what is statutorily required under the planning process. I observed the site notices erected at 7 no. locations around the site and do not accept that there is any validity in the argument that the purpose of the site notices, were constrained by Covid restrictions in operation at the time (May 2021) in terms of alerting the public to the proposed development. I consider that the issues raised regarding public consultation are unfounded and third party rights have been compromised in any way. This is evident from the level of local engagement with the planning authority following the lodgement of the application and the subsequent appeal.

7.4. Landscape and Visual Impact

- 7.4.1. Issues have been raised in the submission regarding the scale of the development and potential impacts on the landscape and visual amenities of the area.
- 7.4.2. The Landscape Character Assessment (LCA) is contained in Appendix 5 of the county development plan.
- 7.4.3. The appeal site is located in landscape character area LCA 10 – ‘The Ward Lowlands’ which is designated as a ‘low value’ landscape of ‘high sensitivity and ‘regional significance’. The landscape is described as a large area of pasture and

farmland in the south east of Co Meath. . It is noted that it is under significant development pressure due to the proximity of the Dublin metropolitan area. The landscape is described as having a degraded quality due to the lack of management, loss of hedgerows and larger fields adjacent to the continually expanding urban fringe.

- 7.4.4. Map 4 of the LCA details the capacity of each area to accommodate development. The Wards Lowlands is deemed to have medium capacity to accommodate large farm buildings, one-off houses, new visitor facilities and new road development. It is considered to have low capacity to accommodate multi-house development, overhead cables, wind farm development, biomass and commercial forestry. The site is not affected by any protected views or prospects detailed on Map 8.6 of the development plan.
- 7.4.5. It is an objective of the Development Plan 'to ensure that the management of development will have regard to the value of the landscape, its character, importance, sensitivity and capacity to absorb change as outlined in Appendix 5 Meath Landscape Character Assessment and its recommendations' (HER OBJ 49).
- 7.4.6. A Landscape and Visual Impact Appraisal supports the application. The wider rural landscape within the study area is assessed as being Local value due to its function as a relatively flat working landscape with a lack of visual features and low scenic value. The landscape elements/features which are present are characteristic of the lowlands (arable land, grazing and deciduous woodland). These are common in the area with no rarity value. It is concluded that the site has low sensitivity to change and has the capacity to absorb the proposed development without significant adverse effects.
- 7.4.7. Six viewpoints were chosen to establish the visual impact of the proposed development on sensitive receptors within the wider study area. The images are presented in Appendix 2 (Solar Development Photomontage Report). The viewpoints are located at various distances and orientations from the site. Views from these locations towards the development site are effectively blocked by existing vegetation, with no discernible visual effects. It is concluded that there may be limited views from four properties which are internal to the site but these are owned by the landowner.

Local road users will experience very localised visual effects which will be confined to the area in the vicinity of the site.

Assessment

- 7.4.8. The application is supported by a Landscaping Management Plan and Dwg No 20228_LA_P 001(Landscape Plan) which describe and illustrate where supplementary hedgerow and native woodland planting is proposed.
- 7.4.9. Having inspected the site and its surrounding, I accept that the site which comprises large agricultural fields separated by hedgerows in a generally flat landscape has the capacity to absorb the proposed development without creating significant adverse effects. The solar arrays, which will extend up to 1.8m above ground level, will not be obtrusive features in this landscape being largely screened by existing and proposed planting. Any views will be highly localised and confined to the immediate environs of the site, with long distance views restricted by existing vegetation. The most significant impacts will occur from the local road that bisects the site which accommodates little traffic and few sensitive receptors, with the exception of a cluster of four houses close to Kilrue farm and which are owned by the landowner. The proposal will not impact on any landscape designations or scenic views.
- 7.4.10. In terms of potential cumulative effects, there are four consented solar farms within 2km of the site, all of which remain to be developed. There would be limited cumulative landscape and visual effects as only one solar farm (Harlockstown) will be visible from the adjacent Kilrue Solar Farm boundary, which has no sensitive receptors in this area. Having regard to the relatively low impact nature of the solar arrays, existing boundary screening and proposed planting, I accept that the potential for cumulative visual and landscape effects is not significant.
- 7.4.11. I consider that the matters raised regarding impacts on the landscape and visual amenities of the area have been comprehensively addressed in the application and the applicant's response to the appeal. I consider that the Board has before it sufficient information to assess the landscape and visual impacts associated with the proposed development both individually and in conjunction with other permitted/proposed developments in the area.

7.5. Flood risk

- 7.5.1. The third parties have raised issues regarding the flood risk assessment submitted with the application. The planning authority's decision (Condition 4) requires that the applicant submit a site-specific flood risk assessment and justification test, that accurately identifies potential flood zones A, B and C throughout the site. It also requires that where essential infrastructure (solar panels, inverter transformer station) is located in flood zones A or B, it shall be removed and a revised site layout plan submitted.
- 7.5.2. The site-specific flood risk assessment submitted in support of the application identified the primary flood risk to the proposed development as an extreme fluvial flood event in the Fairyhouse Stream to the north and in the Unnamed Stream to the south. The assessment and analysis undertaken as part of the flood risk assessment indicates that no significant areas of fluvial flood inundation are predicted to occur within the boundaries of the site. Some areas of minor and negligible channel exceedances associated with both streams are predicted, but this would have no adverse impact on the proposed solar farm development. It was determined that the fluvial flood risk to the site was low and the site falls within a fluvial Flood Zone C.
- 7.5.3. Pluvial flooding is likely to occur at a number of locations within the boundary of the site associated with a 1 in 100-year 6 hour duration rainfall event. The maximum depth of the pluvial flooding or surface water ponding that may occur within the site is predicted to be 0.196m. The overall conclusion reached in the assessment is that the fluvial and pluvial flood risk to and from the proposed solar farm development is low. The development is not expected to result in an adverse impact to the existing hydrological regime of the area or increase flood risk elsewhere. It determined that the overall flood risk to and from the proposed development is 'Low' and 'Not Significant'.
- 7.5.4. In its request for further information, the planning authority referred to flood risk mapping, stated that the site is partially located within Flood Zone B which required that a Justification test be carried out. The applicant's response included an additional report prepared by IE Consulting. It states that the screening assessment contained in the original flood risk assessment is based on all publicly available information and data relating to fluvial flooding and pluvial flood risk available at the

time. The site has not been included in the OPW CFRAM study and accordingly CFRAM study predictive flood extents and flood depth maps are not available for this area. The available data from the OPW Floodinfo.ie and OPW PFRA indicative flood extent maps indicates that no significant fluvial flood extents are mapped within the boundary of the proposed solar farm site. A limited area of 0.1% AER (1 in 1000 year-Flood Zone B) associated with the Fairyhouse Stream is mapped adjacent to the north-western boundary of the site (Peacockstown). The available maps do not indicate any other indicative, predictive or strategic fluvial flood extents within or immediately adjacent to the boundary of the site.

- 7.5.5. The output from a detailed hydrological assessment and hydraulic modelling of the Fairyhouse Stream indicates that the proposed site does not fall within a predictive fluvial flood zone associated with the stream and therefore the development management Justification Test does not apply. The applicant's response refers to the screening assessment undertaken as part of the previously submitted flood risk assessment which does not indicate any potential indicative, predictive, strategic, historic or anecdotal instances of flooding associated with any other watercourse within the boundary of the site and concludes that it is not necessary to undertake any further assessment of other water channels or drainage channels within the boundary of the site.
- 7.5.6. The planning authority's request for further information also refers to evidence of significant flooding associated with overland flow and OPW channels (Channels C1/6/1 and C1/6/1/2), which were not assessed by the applicant. The applicant's rebuttal states that the available maps/data did not indicate any instances of flooding in this area, but that it has been made aware of instances of flooding that have impacted residential properties and lands adjacent to the eastern boundary of the site at Fleenstown Great.
- 7.5.7. Drainage channel C1/6/1 runs in a south to north direction through the site and beyond its western boundary (Fig 2 of FI response). There are a number of agricultural drainage channels that flow in a north-west to south-east direction and upstream of the residential properties on Fleenstown Lane. These agricultural drainage channels and the OPW drainage channel C1/6/1 are stated to provide the primary discharge and conveyance mechanism for surface water runoff generated

from a large proportion of the lands within the boundary of the solar farm site and adjacent lands.

- 7.5.8. A physical inspection of the culverts (Fig 8) in the area was undertaken (Figs 9-14), which indicated that they are significantly undersized and restrictive and do not have adequate hydraulic conveyance capacity. Channel C1/6/1 is noted to have only hydraulic capacity to cater for a 1 in 3 year storm event and it is likely that the agricultural drainage channels only have capacity to deal with the 1 in 2 year storm event. Potential flooding from these drainage channels is significantly exacerbated due to extreme restrictions of the downstream culverts. The extreme restrictive nature of these culverts, together with inappropriate channel alteration works and lack of channel maintenance is identified as the primary cause of previous flooding in Fleenstown Lane.
- 7.5.9. The assessment indicates that previous instances of flooding at this location have occurred downstream of the site and beyond the site boundary. It is acknowledged that there is potential for some out of bank flooding associated with the drainage channels and OPW channel to occur within the site, but it is not expected to be significant and no inverters or transform stations will be located in the vicinity of the drainage channels.
- 7.5.10. Some of the proposed solar arrays may be located within the out of bank flood extents but this will not increase flood risk either within the site or downstream. The solar farm will be supported by small ground driven steel piles with the lower panel edge a minimum of 0.8-1.0 m above existing ground level. The arrays will be constructed above any predictive areas of surface water ponding or flooding with the site. The installed above ground level panels will not impede surface water movement and the existing permeable ground (grass surface) will be retained. Run-off will flow off the angled panels to the permeable grass surface below and there will therefore be no net increase in discharge rate or run-off volume from the site. This is supported by a technical paper appended to the flood risk assessment which suggest that the development of solar farms will not increase flood risk elsewhere². It also considers run-off from the solar panel drip line, which has been raised in the appeals, stating that it will not increase run-off if the vegetated surface is maintained.

² Hydrological Response of Solar Farms. American Society of Civil Engineers (May 2013)

- 7.5.11. The applicant's rebuttal notes that irrespective of whether the solar farm is built or not, the potential risk to properties in Fleenstown Lane will remain. The development of the proposed solar farm will not increase or exacerbate the existing flood risk to adjacent properties. However, the applicant proposes a two-stage solution to help alleviate the flooding issue for affected properties. The first stage is to retain and attenuate any flood waters that originate from within the site and prevent flood waters discharging from the site. The second stage proposal has been agreed with land/property owners and is concentrated on the OPW culverts and channels outside the site boundary and will take a year or more to implement.
- 7.5.12. The first stage solution will require the co-operation of the OPW for the works required within the site boundary. A hydrologist will be appointed to design the drainage system to maintain any flood waters within the site boundary. The maximum volume of waters that will be permitted to discharge will be limited to the 1 in 3 year flood volume as this is the maximum capacity of the OPW drainage channels. The balance of flood water will be retained or attenuated within the boundary of the proposed solar farm site. The works would be undertaken as land reclamation measures and are therefore considered to be exempted development.
- 7.5.13. The applicant is committed to implementing and maintaining this solution for the operational life of the solar farm, or until such time as the second stage solution is fully implemented and there is no requirement for the first solution. The applicant is not opposed to a condition being attached to this effect should the Board be minded to grant permission for the development. It is also confirmed that in compliance with Condition No 4 and as part of the first stage solution the identification of flood zones A, B and C will be undertaken and any required changes to the layout will take place. The information will be used as part of the first stage solution and then the second stage solution to help alleviate the flood risk to local residents encountered due to the capacity issues on the local drainage network and from inappropriate culverting works and which has been formed the proposed solar farm will not contribute at all.
- 7.5.14. The second stage solution involves the development of a flood alleviation scheme and would be largely concentrated on the OPW culverts and channels outside the site. It would require further hydrological assessment, hydraulic modelling works and third party agreements, including consent from the OPW for any alterations to OPW

channels. These works would take place outside the boundaries of the site and cannot be conditioned as part of any permission.

Assessment

- 7.5.15. This a large site and with the exception of surface water ponding in localised areas and the potential for out of bank flooding associated with drainage channels to the east, there is no evidence that the site is at significant risk of flooding.
- 7.5.16. The flood risk assessments carried out on the site and its vicinity indicate that flooding that has occurred to the east is associated with inappropriate culverting works and capacity issues in the local drainage network in channels/culverts on third party lands downstream of the site. The assessment confirms that the proposed solar farm development will not increase the risk of flooding on the subject site or exacerbate flooding downstream. I am not therefore persuaded that the requirement for an additional site specific flood risk assessment (Condition 4) will serve any useful purpose.
- 7.5.17. To mitigate potential impacts on property/dwellings downstream of the site, it is proposed to limit the run-off discharge rate from the site such that the capacity of existing drainage channels will not be exceeded. I also note from the Construction and Environmental Management Plan that it is also proposed to implement a Drain and Watercourse Management Plan for the operational lifetime of the facility to maintain the existing conveyance capacities of all drains and watercourses within the site. The aim is to ensure that any vegetation overgrowth or vegetation debris does not result in an increase flood risk to the site.
- 7.5.18. I consider that in the event the Board is minded to grant permission for the development, the matter can be adequately addressed by condition. Any flood relief works proposed on lands outside the development boundary is a much broader issue which is beyond the scope of the application and this appeal.
- 7.5.19. The drawings submitted in response to further information show that adequate buffer zones/maintenance strips for drainage channels will be maintained within the boundary of the site, together with appropriate vehicular access as required by the OPW.
- 7.5.20. I consider that the flood risk assessment which are carried out in accordance with established guidance is comprehensive and proportionate and provides sufficient

information to enable the Board to assess the flood risk associated with the development. Subject to the mitigation measures proposed which will limit the surface water discharges from the site, I do not consider that the proposed development will exacerbate flooding either within or downstream of the site.

7.6. Traffic and access

- 7.6.1. It is contended in the submissions that the access roads to the site are unsuitable for the volume of construction/maintenance traffic that will be generated by the proposed development and that the cumulative impacts in association with other solar farm traffic have not been assessed. It is contended that the amenity of the area will be affected, and the local community will be significantly impacted by the development. A Supplementary Transport Note supports the First Party rebuttal to the grounds of appeal.
- 7.6.2. The road network in the vicinity of the site is described in the Traffic Management Plan submitted in support of the application. The main impacts on roads and traffic will occur during the construction stage. A temporary construction compound will be established to the north of the site. All heavy construction traffic will access/egress the site via Harlockstown Lane (L10073), the R125 and from there onto the M2 motorway at Junction 3.
- 7.6.3. Harlockstown Lane (L10073) is a two-way single carriageway that runs south to north through the site. It is 6.7m in width at the site access and narrows to 3.7m further north. It provides access to Kilrue farm and a number of residential properties. It connects into the R125 further north via a simple priority T junction. The R125 consists of a two-way single carriageway that varies in width between c 7m and 9m. It connects to the M2 via a roundabout (Nine Mile Roundabout) c 1.3km to the east (Junction 3).
- 7.6.4. The traffic report provides a summary of the expected stages of development, the expected duration of each stage and the nature of vehicles likely to access the site throughout construction. It provides an assessment of the potential impact of the development on the road network and identifies measures to mitigate potential effects.
- 7.6.5. It is predicted that the highest number of vehicles will be associated with the delivery of solar panels and ancillary equipment to the site, estimated at 600 HCV

movements throughout a 16-week period and around 15 vehicles per day (3.3 per hour) on average. There will also be staff related traffic associated with an estimated 50 workers employed on the site during the fitting of the solar modules and the electrical connection, but that the numbers will vary subject to the construction schedule, estimated to generate between 15-25 car/motorcycle/ van/minibus journeys to the site daily. The staff movements would typically occur at the start and end of the working day and would not generally coincide with the movement of large vehicles. Once the site is operational, the site will be unmanned and only visited on occasions for maintenance purposes and expected to have a negligible effect on the local road network.

- 7.6.6. It is acknowledged that sections of Harlockstown Lane are narrow and are not likely to be able to accommodate two-way traffic. The applicant has identified informal passing places (Fig 5), which would be of sufficient width to accommodate waiting vehicles and a passing HGV. The road is of adequate width in the vicinity of the proposed construction compound, to allow the passing of two HGV's and swept path analysis indicates that the access to the construction compound and the junction with the R125 can accommodate the turning manoeuvres associated with construction, with no overrun and without impacting on traffic safety. Adequate visibility splays are also available to the left and right of the proposed site access to ensure vehicles can exit safely.
- 7.6.7. A number of measures are proposed to mitigate impacts on road users during the construction stage. These include targeting deliveries (between 10.00 -14.30) not to coincide with peak times on the local network. Staff arrivals/departures will not coincide with the movement of larger vehicles and parking will be provided on site. A banksman will be employed on site to coordinate all traffic movements during construction and ensure that pedestrian safety is not compromised. Appropriate signing/barriers will also be erected to safeguard pedestrians and a temporary signing strategy will be implemented to ensure that large vehicles use the designated route only and to warn road users of the likely presence of construction vehicles making turning movements in the vicinity of the proposed development.

Assessment

- 7.6.8. I consider that the issues raised by the third parties have been adequately addressed by the applicant. I accept that sections of Harlockstown Lane are deficient in terms of width and alignment. However, the length of the road affected is limited (c 800m) and can be improved by the provision of passing bays, which is accepted by Meath Co. Council. Development traffic will not add significantly to existing flows on the regional road R152 and the M2 which are already heavily trafficked.
- 7.6.9. Having regard to the temporary and short-term nature of the construction phase (c 25 weeks), the relatively low number of HCV's that will use the road on a daily basis, the measures outlined above to avoid peak times on the road network and to protect pedestrian and traffic safety, I accept that the impacts on roads and traffic will not be significant.
- 7.6.10. In terms of cumulative impacts, I note that planning permission has been granted for a number of solar farms in the vicinity of the site, including two to the west and one immediately adjoining the subject site to the north. The site to the north will be accessed directly off the R 125 and the sites to the west will be accessed via Local Road L1007 (Ratoath to Kilbride), which will provide direct access to the R125 and from there to the M2. Having regard to more direct access to the regional and national road network, I do not consider that there would be any incentive for other developments to use Harlockstown Lane during the construction stage, with the potential to create cumulative traffic impacts.
- 7.6.11. There is potential for cumulative impacts on the R125 should the development of the subject proposal coincide with the development of other solar farms in the locality. However, having regard to the relatively low level of traffic associated with the construction, and its temporary nature, the potential for significant cumulative traffic impacts is not considered significant.
- 7.6.12. I consider that the matters raised regarding impacts on the character of the local road network are unfounded. With the exception of passing bays, no other changes are proposed. The requirement for pre-and post-construction surveys will ensure that any damage to the local road is made good following the completion of the development. I accept that there are likely to be impacts on local amenities associated with construction traffic (noise, potential disturbance, dust, emissions)

which will be of short duration and managed through appropriate traffic management measures and the mitigation measures outlined in the Construction and Environmental Management Plan.

7.6.13. In response to issues raised by the appellants, the applicant confirmed that due to Covid restrictions, the original Traffic Management Plan was prepared from a desktop assessment and using up-to-date topographical data and aerial imagery. The accuracy of the information was confirmed in a site visit carried out in 2021.

7.6.14. Trip generation is based on estimates and experience with other similar sites. No traffic surveys or traffic counts were carried out which is considerable acceptable having regard to the relatively low volumes of traffic that will be generated by the proposed development and the low potential for significant effects on the efficiency of the existing road network.

7.7. Biodiversity

7.7.1. The third parties consider that the proposed development will impact on birds and wildlife and that the ecological report is inaccurate. Eco Consultancy express dissatisfaction with the Appropriate Assessment (AA) and the Natura Impact Statement.

7.7.2. The potential impacts of the proposed development on designated sites, habitats flora and fauna are assessed in an Ecological Impact Statement prepared by Wetlands Surveys Ireland Ltd. Potential impacts on European sites are assessed in the Natura Impact Statement and is considered separately below under Appropriate Assessment (Section 7.14). A Biodiversity Management Plan sets out measures to protect and enhance biodiversity within the site.

7.7.3. The proposed development largely occurs on intensively managed farmland. The dominant habitat type is Arable Crops (BC1) with some improved agricultural grassland (GA1). An area of ash dominated woodland (WN2) occurs within the north western boundary and another to the east adjacent to but outside the proposed development site. Other habitats include scrub (WS1) to the north, small artificial ponds and linear habitats comprising hedgerows and treelines along field boundaries. The only mapped watercourse within the site boundary is the Fairyhouse Stream to the north, which potentially may provide commuting and

foraging habitat for birds and species. Drainage channels occur along the base of the field boundaries and may were stagnant at the time of the field surveys.

- 7.7.4. In terms of mammals, few species were recorded on the site (badger, fox and rabbit), but it is acknowledged there is potential for other mammals to occur. A large badger sett was recorded within the western parts of the central area of the site. Much of the site is located within an area of high suitability for all bat species. The wooded habitats, mature trees that occur along treelines and hedgerows provide valuable foraging and commuting habitat and may potentially provide bat roost habitat. Farm building located centrally within the site may also support bat species.
- 7.7.5. Regarding birds, the site is well removed from sites designated as Special Protection Areas and the habitats within the site are not considered of particular interest to species of high conservation concern. It is acknowledged that the mixed agricultural land use within the site provides favourable conditions for the Red listed Yellowhammer. No evidence of barn owl (Red listed) was recorded but some of the open farm buildings and the derelict building to the south would be capable of supporting it. The species that were recorded during the walkover surveys are widespread and common including raptors (buzzard, kestrel and sparrowhawk) and common passerine species (blackbird, blue tit, chaffinch, greenfinch, magpie, pheasant, rook, wood pigeon and wren). The matrix of hedgerows/treelines within the site provide commuting routes for bird species. The Fairyhouse Stream may potentially provide foraging habitat for some species including Kingfisher, a species listed on Annex 1 of the Birds Directive.
- 7.7.6. The proposed development will alter existing conditions on the site by replacing arable crops and improved grassland habitats with solar arrays and associated infrastructure. Vegetation will continue to occupy the areas beneath and surrounding the site's infrastructure. Having regard to the low/moderate ecological value of the affected habitats the impact associated with direct habitat loss and alteration is assessed to be a negligible adverse impact. The habitats identified as having a high ecological value will be retained including native ash woodland, scrub, small ponds and linear features.
- 7.7.7. There will be some temporary disturbance to mammalian species associated with the construction period. However, the site is considered to be of low to moderate

value to mammalian species. The active badger sett and the hedgerow supporting the sett will be retained and works will be set back from the sett entrance. Mammal friendly fencing is proposed along the perimeter of the site which will enable species to access the site. The native woodland to the north of the site, which is considered to be the most valuable habitat for bats within the site will be retained as will the treelines/hedgerows that provide important commuting, foraging and potential roost habitat. A buffer zone (20m) will be maintained between the works and the Fairyhouse Stream which may support Otter, although none were observed during the site visits.

- 7.7.8. In terms of birds, the site is well removed from sites designated for conservation of avifauna and there are no significant wetlands within or in close proximity to the site. The construction period, which will be short term is likely to result in temporary disturbance to birds associated with noise and human activity. Following construction, the site is likely to be less suitable as foraging habitat for common bird species and the raptor species recorded within the site. However, the habitats considered to be of most value to birds (treelines, hedgerows and woodland) will be retained and the proposed buffer adjacent to the Fairyhouse Stream will ensure it will remain as commuting/foraging habitat for birds.
- 7.7.9. The potential for cumulative impacts is considered in conjunction with other solar farm developments in the locality. It is noted that each solar farm proposal has been subject to AA Screening, and it is concluded in each case that the solar farm developments would not lead to significant adverse effects on European sites. Having regard to the scale and characteristics of the proposed development, there is no potential for cumulative impacts of significance on flora and fauna to arise.
- 7.7.10. A range of mitigation measures will be implemented with the aim of avoiding and reducing potential adverse ecological impacts. These are set out in the Construction and Environmental Management Plan (CEMP). The measures which are proven best practice include measures to control sediment run-off to watercourses (20m buffer zone along the entire length of the Fairyhouse Stream; four stage silt protection measures), measures to prevent soil erosion, appropriate stockpiling of materials, suitable areas, implementation of best practice for the storage of fuels, oils, chemicals, refuelling etc.

7.7.11. A range of biodiversity enhancement measures will be incorporated into the design of the proposed development, the aim being to enhance the biodiversity value of the site. These include potential planting of native woodland in undeveloped areas of the site, retention of grassy verge vegetation along the boundaries of the proposed development and the implementation of an ecologically sensitive mowing regime to encourage the growth of native flowering species and grass swarths, enhancement of existing pollinator friendly habitat, provision of shelter and nesting habitat for bees and erection of bat boxes.

Assessment

7.7.12. I would point out to the Board that the appellant (Lorna Lyons) has provided no basis for her contention that the ecological report is inaccurate. The information provided was compiled from desk-top and walk over surveys and in accordance with established guidance and the report was compiled by competent experts in the field. I have no reason to doubt its efficacy and I consider that it provides sufficient information to enable the Board to fully assess the ecological impacts of the proposed development.

7.7.13. I accept the habitats of greatest ecological importance within the site will be avoided by the design and layout of the development and subject to the mitigation measures proposed will continue to provide foraging and commuting habitat for mammals, birds and bats, which will be further enhanced by the measures outlined in the Biodiversity Management Plan.

7.8. Cultural Heritage

7.8.1. The impacts of the proposed development on the archaeological, architectural and cultural heritage of the area are assessed in the Archaeological and Cultural Heritage Report submitted in support of the application.

7.8.2. There are no protected structures within the site. The closest is Grange Cottage located well set back from the roadside within a tree lined yard, c 170m south west of the proposed development site. The proposed development will not impact on the character or setting of the protected structure.

7.8.3. There is one RMP (ME045-012), an enclosure, which presents as a small mound within the boundaries of the site. It is located to the north of the site and geophysical

surveys conducted on the site indicates that the standing monument is part of a much larger enclosure complex of which there is no surface expression.

- 7.8.4. The assessment also indicates that it is highly likely that the farm complex at Kilrue House occupies the site of a castle and a manor house that were once enclosed by a bawn and possibly also by a moat. The farm and surrounding fields containing these features have been excluded from the proposed development.
- 7.8.5. Outside the south end of the site on Kilrue Lane the site of a structure named 'Bracket Gate' was identified on the first edition OS six inch maps. It is considered likely that the gateway controlled access to the lands at Kilrue House and the castle that predated it. There will be no ground works along Kilrue Lane as part of the proposed development, which would cause interference with the structure.
- 7.8.6. Cartographic analysis also identified a possible mill race in the north-western corner of the site. It runs parallel to and close to the existing field boundaries, which will be left in situ. Part of the possible mill-race lies within an ecological exclusion zone within which there will be no development. There will also be a 5m buffer maintained between the existing field boundaries and the solar panel layout resulting in minimal ground disturbance at the site of the possible mill race.
- 7.8.7. The geophysical survey³ identified 26 areas within the proposed development site containing archaeological sites. Targeted archaeological testing was carried out to assess the veracity of the geophysical survey results. A total 12 test trenches were excavated. The recorded archaeological sites and additional features identified by the geophysical survey as clearly archaeological, will be preserved in situ and have been excluded from the proposed development.
- 7.8.8. To mitigate impacts on the archaeological resources a combination of exclusion zones and buffer zones will be provided to protect newly identified and potential archaeological sites or features identified. These are detailed in Table 9 of the report and identified on Maps 1-3 (Kilrue exclusion and buffer zones overview) submitted in support of the application. Any ground disturbance outside these areas will be subject to archaeological monitoring.

³ Geophysical Survey Report -Archaeological Magnetic Gradiometry Survey commissioned by Soleire Renewables is included as a separate support with application documents.

- 7.8.9. The exclusion zones will extend to 5m or 10m beyond the identified sites/features (15m in the case of RMP site ME045-012). An additional buffer zone (5-10m) will be provided around the exclusion zones, and the solar panels will be supported on concrete blocks ('concrete feet') to avoid the ground penetration required by the normal supports. The exclusion zones will be planted with wildflower meadow as part of the archaeological strategy, which will provide a visual demarcation of the areas.
- 7.8.10. All ground disturbance associated with the development will be monitored by an archaeologist and regular inspections will be undertaken by an archaeologist to ensure that the exclusion zones are maintained. Notwithstanding the level of investigation/testing that has occurred on the site, it is acknowledged that there may be potential for further archaeological material to be uncovered, which would require further mitigation, which would be agreed with the National Monuments Service.

Assessment

- 7.8.11. I consider that the archaeological assessment of the site is comprehensive and identifies the rich archaeological resource that exists within the site. I consider that the mitigation measures proposed which excludes development in the vicinity of identified sites and features, the demarcation of exclusion zones together with monitoring of all ground disturbance is sufficient to protect the archaeological resource that exists within the site.
- 7.8.12. I would point out to the Board that the National Monuments Services have reviewed the application and have raised no issues in respect of the proposed development, subject to a condition being attached to any grant of permission requiring archaeological monitoring.
- 7.8.13. I am satisfied that the Board has before it sufficient information to assess the impacts of the proposed development on the cultural heritage of the area.

7.9. Glint and glare

- 7.9.1. The matters raised in the submission on glint and glare relate to potential impacts associated with solar reflections on sensitive receptors including dwellings, roads and aviation activity. The Landscape Plan Dwg 2028_LA_P001 shows existing and details of proposed planting to prevent Glint and Glare effects.

- 7.9.2. A Solar Photovoltaic Glint and Glare Study prepared by Pager Power was submitted with the application and was updated in response to further information. It provides an assessment of the possible effects of glint and glare from the proposed development. It describes the assessment methodology and relevant guidance. Geometric calculations were undertaken to determine whether reflections from the solar farm are possible, and whether a significant detrimental impact is likely to occur.
- 7.9.3. It identifies key receptors in the area as dwellings, road users and aviation activity associated with Dublin airport. There is no formal guidance regarding the maximum distance at which glint and glare should be assessed. A 1km buffer is considered appropriate for ground-based receptors.
- 7.9.4. The analysis included all dwellings within 1km of the site which have a potential view of the panels. The modelling showed that solar reflections are geometrically possible towards 126 out of the 141 assessed dwelling receptors. The potentially affected dwellings were then considered in the context of existing vegetation, commercial buildings and proposed planting along the site boundary (Table 8). In the case of each dwelling, views of the proposed solar arrays would be obstructed such that no glint and glare impacts will be experienced by these receptors. There is one dwelling identified where the impact on the dwelling is predicted to be low due to partial screening in the form of existing vegetation. However, the screening is considered to sufficiently reduce views of the reflecting panels. No mitigation is considered necessary for any of the dwellings.
- 7.9.5. Regarding roadside receptors, the assessment considered the road network within 1km of the site with a potential view of the panels. This includes part of the M2 Motorway to the west of Junction 3 and Kilbride road that runs from south to north east. Local roads were not included for geometric modelling as any solar reflections that are experienced by a road users would be considered low impact having regard to low traffic densities.
- 7.9.6. The modelling showed that solar reflections are geometrically possible towards 33 of the 43 road receptors along the Kilbride Road and all 12 of the assessed receptors along the M2 (Table 5). When considered in the context of existing screening and

proposed planting which is predicted to significantly obstruct views, no impacts on road users are predicted on the M2 or Kilbride Road and no mitigation is warranted.

- 7.9.7. The planning authority raised issues regarding the lack of consideration of impacts on road users on Harlockstown Lane. The updated assessment provided in response to further information states that solar reflections are predicted to be experienced along a c. 650m stretch of Harlockstown Lane. Due to the classification of the road (local road) and the associated traffic densities and speeds, a low impact upon road users is predicted. The potential impacts could be impacted by landscaping in the form of hedgerows along both/either side of the 650m stretch of road. I recommend that a condition to this effect be attached should the Board be minded to grant permission for the development.
- 7.9.8. Dublin airport lies c 8.5 km to the southeast. The assessment considers the potential for impacts on ground-based aviation receptors (original Air Control Tower (ATC), the new ATC tower, the Fire Station Watch Tower and the 8 Bay Pod). It also considers the existing runway approaches and the new runway under construction (Fig 5).
- 7.9.9. The result of modelling indicates that solar reflections towards both ATC towers are geometrically possible. Views of the reflecting panels cannot be entirely ruled out and effects are therefore possible. Various factors are considered in the assessment including the distance from the ATC's to the solar arrays and a low impact is predicted with no mitigation required. The applicant states that this conclusion is accepted by the IAA. However, there is no record on the file. No impacts are predicted for the fire station watchtower or 8 Bay Pod as views of the proposed development will be obscured. There is a response from the DAA requesting that a condition be imposed requiring that the applicant implement screening measures to minimise impacts. I note that the planning authority did not attach such a condition.
- 7.9.10. The modelling has shown that solar reflections are geometrically possible towards parts or the entirety of some of the runway approaches. A maximum glare intensity of 'low potential for temporary after-image' is predicted, which is stated to be acceptable having regard to FAA guidance⁴. No mitigation is required.

⁴ Technical Guidance for Evaluating Selected Solar Technologies on Airports (Federal Aviation Administration) April 2018.

Assessment

I consider that the Glint and Glare assessment submitted in support of the application is comprehensive and is carried out by reputable consultants in the field. I consider that the Board has before it sufficient information to assess this aspect of the development.

- 7.9.11. On the basis of the information submitted and subject to the mitigation measures proposed along Harlockstown Lane, no significant glint and glare impacts will arise from the proposed development which would cause significant adverse effects on receptors including dwellings or road users

With regard to impacts on aviation activity at Dublin airport and other aviation activity referred to by the appellants, it appears that significant effects will not arise and no mitigation is necessary. However, I can find no record of consultation with the IAA on the file. Should the Board be minded to grant permission for the development, I recommend that a condition be attached requiring that the solar farm is installed in accordance with the requirements of the IAA.

7.10. Noise

- 7.10.1. An Environmental Noise Assessment Report supports the application. It identifies the main noise source from the operational solar farm as originating from inverters and transformers. A noise modelling exercise was conducted to establish the impact of these noise sources on sensitive receptors. The calculated noise levels indicate that the proposed solar farm installation would operate below good practice noise level criteria and have a low impact upon nearby noise sensitive receivers.
- 7.10.2. It is noted that the proposed equipment has yet to be selected and that an assessment of tonality cannot therefore be undertaken. However, tonal elements are not present in similar units. I note that the planning authority has attached a condition (Condition 10(j)) setting operational noise limits, requiring annual monitoring and the provision of vibration dampeners to mitigate any potential tonal noise. I note that previous decisions by the Board have not included conditions in respect of noise.
- 7.10.3. More significant noise levels will be generated during the construction period. Predicted noise levels are based on noise source data detailed in BS5228-1-*'Code of Practice for noise and vibration control on construction and open sites'*, which

indicates that noise level limits of 65 dBA would be suitable during daytime hours. The calculated construction noise levels for the closest receptors indicate that the impact levels will be below the guidance criteria proposed in BS5228.

Assessment

7.10.4. I accept that the main noise impacts will occur during the construction stage, which has the potential to impact on the residential amenity of adjacent properties. Having regard to its temporary nature and short term duration and the good practice measures to control noise outlined in the CEMP, I do not consider that the impacts will be significant.

7.11. Health and Safety

7.11.1. There is no evidence that operational solar farms result in any significant effects on human health. The applicant's rebuttal refers to potential improvements to soil and water as a result of the displacement of artificial fertilisers and pesticides associated with existing intensive agricultural practices. The proposed development will also result in improvements to air quality associated with the displacement of fossil fuels in energy production with reductions in green house gas emissions. The proposed development will also be required to operate in accordance with established guidance for electromagnetic field limits to protect human health.

7.11.2. The solar panels proposed are single crystal silicon and will not contain the toxic substances referred to by Eco Consultancy which could potentially pose a risk to human health if leaked to the environment.

7.11.3. Regarding the issues raised by the appellants relating to fire, I note that following the receipt of further information the Assistant Chief Fire Officer has raised no objection in principle to the proposal.

7.12. Grid Connection

7.12.1. As noted, the proposal will require an on-site electricity substation which is not included in the planning application and will be subject to a separate consenting process as a SID application submitted directly to An Bord Pleanála. The location of the substation is not indicated on the drawings but is referred to in the NIS where it is stated that it will be located centrally along the eastern boundary and that the

underground connection will follow public roads to Corduff substation c 6.6km to the south-east in Co. Dublin.

7.13. Environmental Impact Assessment

- 7.13.1. Schedule 5 of the Planning and Development Act, 2000, as amended lists classes of development and thresholds of development for which mandatory EIA is required. On the basis that solar farms are not listed under any class of development under Part 1 or 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended), mandatory EIA would not be required and the provisions for sub-threshold EIA do not apply.
- 7.13.2. Notwithstanding this, the applicant has submitted an EIA Screening Report against the criteria set out in Schedule 7 of the 2001 Regulations as amended. Having regard to the characteristics and location of the proposed development and the type and characteristics of potential impacts, I accept the conclusion reached in the screening report that the development will give rise to significant effects and as such EIA is not required.
- 7.13.3. I consider that the information provided in the application, supported by the further information received is adequate to allow a comprehensive assessment of the impacts of the development on the environment to be carried out.

8.0 Appropriate Assessment

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

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.

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

8.2. Stage 1 Screening for Appropriate Assessment

The Stage 1 Appropriate Assessment submitted by the applicant identifies 5 no. European sites within 15km of the site which are as follows:

- Rye Water Valley/Carton SAC (Site code: 001398),
- Malahide Estuary SAC (Site code: 000205),
- Malahide Estuary SPA (Site code: 004025),
- Rogerstown Estuary SAC (Site code:000208)
- Rogerstown Estuary SPA (Site code: 004015).

The sites together with their qualifying interests, the distance from the development site and the potential for ecological connectivity are set out below.

European site (SAC/SPA)	Qualifying Interests	Distance	Potential Connectivity
Rye Water Valley/Carton SAC (Site code 001398)	[7220] Petrifying Springs [1014] Narrow-mouthed Whorl Snail [1016] Desmoulin's Whorl Snail	12km to the south	No. No hydrological or other ecological connectivity has been established.
Malahide Estuary SAC (Site code: 000205)	[1140] Tidal Mudflats and sandflats [1310] <i>Salicornia</i> Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [2120] Marram Dunes [2130] Fixed Dunes	13km to the east	Yes. Hydrological via Fairyhouse Stream c 16.8km downstream
Malahide Estuary SPA (Site code: 004025)	[A005] Great Crested Grebe [A046] Brent Goose [A048] Shelduck [A054] Pintail [A067] Goldeneye [A069] Red-Breasted Merganser [A130] Oystercatcher [A140] Golden Plover [A141] Grey Plover [A143] Knot [A149] Dunlin [A156] Black-tailed Godwit [A157] Bar-tailed Godwit [A162] Redshank [A999] Wetlands	13.3km to the east	Yes. Hydrological via Fairyhouse Stream c 17.2 km downstream
Rogersstown Estuary SAC (Site code: 000208)	[1130] Estuaries [1140] Mudflats and sandflats [1310] <i>Salicornia</i> mud [1330] Atlantic Salt Meadows	14km to the east	No. No hydrological or other

European site (SAC/SPA)	Qualifying Interests	Distance	Potential Connectivity
	[1410] Mediterranean Salt Meadows [2120] Marram Dunes [2130] Fixed Dunes		ecological connectivity has been established.
Rogerstown Estuary SPA (Site code: 004015)	A043] Greylag Goose [A046] Light-bellied Brent Goose [A048] Shelduck [A056] Shoveler [A130] Oystercatcher [A137] Ringed Plover [A141] Grey Plover [A143] Knot [A149] Dunlin [A156] Black-tailed Godwit [A162] Redshank [A999] Wetlands and Waterbirds.	15km to the east.	No. No hydrological or other ecological connectivity has been established.

8.3. Conclusion on Stage 1 Screening for Appropriate Assessment

Stage 1 of the screening process concluded that two Natura 2000 sites could potentially be impacted by the proposed development. These are the Malahide Estuary SAC and the Malahide Estuary SPA due to hydrological connectivity via the Fairyhouse Stream which flows east before discharging into the Broad Meadow River and finally into the Malahide Estuary. The Stage 1 Screening Assessment concluded that in the absence of mitigation, there was potential for significant effects and these sites were therefore brought forward for Stage 2 Appropriate Assessment.

The development site is not hydrologically connected to the Rye Water River Valley/Carton SAC, the Rogerstown Estuary SAC and the Rogerstown Estuary SPA. and no other ecological connections between the site and these natura 2000 sites have been identified. Due to the nature of the proposed development, the distances between the development site and the European sites, the lack of substantive linkages and impact source-receptor pathways, I accept that there is no potential for

direct or indirect impacts on the European sites or their qualifying interests arising from the proposed development.

8.4. **Appropriate Assessment**

The development site is well removed from the boundaries of both the Malahide Estuary SAC and the SPA and there is no potential for direct impacts on either of these European sites. There is potential for indirect effects associated with a deterioration in water quality arising from the proposed development.

In the absence of mitigation, the construction phase of the development has the potential to result in the migration of sediment laden water to enter the SAC/SPA via the Fairyhouse Stream. Accidental fuel/oil/chemical spillages or other harmful substances could also result in pollution downstream. Significant adverse effects on the integrity of the European sites and their qualifying interests cannot therefore be ruled out.

A suite of mitigation measures are proposed and these are included in the CEMP. The measures are standard best practice to mitigate against potential adverse impacts on water quality. In addition to the maintenance of a 20m buffer along the length of the Fairyhouse Stream within the site, sediment control measures (check dams, silt traps, silt curtains etc) will be installed and a four-stage pollution mitigation control measure (section 6.1.3 of the CEMP) will be implemented. Standard practices will be adhered to in terms of stockpiling of materials to prevent surface water run-off, storage of fuel/oil/chemical and other hazardous substances and refuelling of plant/machinery to prevent pollution of watercourses.

In terms of cumulative impacts, the applicant considers the potential in combination effects with other solar farm proposals in the vicinity of the site. These sites are either hydrologically isolated from the proposed development with no potential for cumulative effects or have been subject to Appropriate Assessment and no significant effects on the integrity of European sites or their qualifying interests is predicted.

A new substation will be developed to facilitate the solar farm. It will be constructed along the eastern boundary of the site. From here the underground cable will follow public roads to Corduff substation (Co. Dublin) c.6.6km to the southeast of the proposed development site. The underground cable which will be c7.4km in length

will require four watercourse crossings along its route. The Malahide Estuary SAC and SPA occur c 14.7km and 15.1km downstream of the watercourse crossing. It has been concluded that the proposed solar farm will not result in impacts adversely on the integrity of the European site's or the qualifying interests and there is therefore no potential for the proposed solar farm to act in-combination with the proposed substation and underground connection to generate adverse effects.

8.5. Conclusion on Appropriate Assessment

Having regard to the nature of the proposed development which involves a minimum amount of excavation and intrusive ground works, the significant distance between the development site and the European sites, the mitigation measures proposed which are proven best practice to protect water quality, the information presented with the application, including the Natura Impact statement, which I consider is adequate to carry out an assessment of the implications of the proposed development on the integrity of the European sites, I consider that it is reasonable to conclude that the proposed development, individually or in combination with other plans and projects would not adversely affect the integrity of the Malahide Estuary SAC (Site code:000205) or the Malahide Estuary SPA (Site code:004025), or any other European site, in view of the site's Conservation Objectives.

I consider that there is no reasonable doubt remaining as to the absence of such effects and there are no gaps in the information provided which would undermine the conclusion reached in the assessment.

9.0 Recommendation

- 9.1. Having regard to the foregoing, I recommend that planning permission be granted for the proposed development for the reasons and considerations set out below, and subject to the attached conditions.

10.0 Reasons and Considerations

Having regard to national and regional policy objectives and the provisions of the Meath County Development Plan 2021-2027 in respect of renewable energy, the nature, scale and location of the proposed development, it is considered that, subject to compliance with the conditions set out below, the proposed development would support national and regional renewable energy policy objectives, would not conflict with the provisions of the development plan, would not seriously injure the landscape character or the visual amenities of the area, would not adversely affect the archaeological or natural heritage, would not lead to an increased risk of flooding within the site or on adjoining lands, would not seriously injure the residential amenity of nearby dwellings, would be acceptable in terms of traffic safety and convenience would, therefore, be in accordance with the proper planning and sustainable development of the area.

11.0 Appropriate Assessment

Appropriate Assessment Stage 1

The Board considered the Screening Report for Appropriate Assessment, the Natura Impact Assessment and all the other relevant submissions and carried out both an appropriate assessment screening exercise and an appropriate assessment in relation to the potential effects of the proposed development on designated European Sites. The Board agreed with the screening assessment and conclusion carried out in the Inspector's report that the Malahide Estuary SAC (Site code: 000205) and the Malahide Estuary SPA (Site code: 004025) are the only European Sites in respect of which the proposed development has the potential to have a significant effect and must therefore be subject to Appropriate Assessment.

Appropriate Assessment Stage 2

The Board considered the Natura impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed development for the European Sites, namely, the Malahide Estuary Special Area of Conservation (Site Code 000205) and the Malahide Estuary Special Protection Area (Site code:004025) in view of the sites' conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an Appropriate Assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

- (i) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- (ii) the mitigation measures which are included as part of the current proposal, and
- (iii) the conservation objectives for the European Sites.

In completing the Appropriate Assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regard to the site's conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' conservation objectives.

12.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further plans and particulars submitted on the 27th day of July 2021, except as may otherwise be required in order to comply with the following conditions.

Where such details require details to be agreed with the planning authority, the developer shall agree such details in writing prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interests of clarity.

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

Reason: In the interests of clarity.

3. (a) This permission shall be for a period of 40 years from the date of the commissioning of the solar array. The solar array and associated ancillary structures shall then be removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.

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

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

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

4. 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.

Reason: In the interests of clarity.

5. The mitigation measures and monitoring commitments identified in the Natura impact statement and other plans and particulars submitted with the application shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this permission.

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

6. (a) Prior to commencement of development, a traffic management plan for the construction phase of the development shall be submitted to, and agreed in writing with the planning authority. The traffic plan shall incorporate the following:

- i) Details of proposed site access incorporating appropriate sightlines in both directions in accordance with the requirements of the planning authority

- ii) A condition survey of the L-10073 local road (Harlockstown Lane) between the proposed site entrance and the R125 regional road shall be carried out at the developer's expense by a suitably qualified person both before and after the construction of the proposed development. The survey shall include details of the location and layout of the pull-in passing bays and any other works required to enable the local road to cater for construction related traffic. The extent and scope of the survey shall be agreed with the planning authority prior to commencement of development.

- iii) Detailed arrangements whereby the rectification of any construction damage which arises shall be completed to the satisfaction of the planning authority.

.(iv) Detailed arrangements for temporary traffic arrangements/control on roads and protocols to keep residents informed of upcoming traffic related matters.

.**Reason:** In the interests of traffic safety and to minimise disruption to road users.

7. .(a) Existing field boundaries shall be retained, notwithstanding any exemptions available, and new planting undertaken in accordance with the Landscaping Management Plan and Landscape Layout Drawing 2028-LA-P001 submitted to the planning authority.

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

.(c) A detailed long-term Landscape Maintenance and Management Plan shall be submitted to and agreed in writing with the planning authority to ensure that hedgerows are maintained at the required height, that there are no gaps, that dead or dying trees and hedgerows are immediately removed and replaced, and that there is no excessive trimming/pruning which could leave the hedgerows below the required screening levels.

.**Reason:** In the interests of biodiversity, the visual amenities of the area and the residential amenities of properties in the vicinity.

8. .A continuous hedge of indigenous species shall be planted along a 650m stretch of the site boundary on both sides of the L-10073 (Harlockstown Lane) to details to be submitted for the written agreement of the planning authority prior to commencement of development, which shall include . details of the location, number and species to be planted, timescale for implementation and proposals for replacement planting during operative period of proposed wind farm.

. **Reason:** To reduce the potential for glint and glare on road users and traffic safety.

9. . The developer shall comply with the following requirements:

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

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

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

. (d) The inverted/transformer station shall be dark green in colour.

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

10. . Surface water from the site shall not be permitted to drain onto the adjoining public road.

. **Reason:** In the interests of traffic safety.

11. . Prior to any development taking place on the site and following consultation with the Office of Public Works, the developer shall submit for the written agreement of the planning authority

. (a) a drainage management plan prepared by a suitably qualified hydrologist incorporating proposals to attenuate potential pluvial flood waters within the site.

. (b) details of buffer zones along OPW maintained watercourses together permanent access that will be maintained to facilitate access of the Office of Public Works for maintenance purposes.

. **Reason:** To ensure that the proposed development does not increase or exacerbate flooding downstream of the site.

12. . Before any development takes place on the site, details of the structures of the perimeter fence showing provision for the movement of mammals at regular intervals along the perimeter of the site shall be submitted for prior written approval of the planning authority. This shall be facilitated through

the provision of mammal access gates designed generally in accordance with standard guidelines for mammal access (NRA 2008)

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

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

. (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigation) relating to the proposed development, and

. (b) employ a suitably qualified archaeologist prior to commencement of development. The archaeologist shall assess the site (including archaeological testing) and monitor all site development works

. The assessment shall address the following issues:

. i. the nature and location of archaeological material on the site, and

. ii the impact of the proposed development on such archaeological material.

. A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works.

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

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

14. . The construction of the development shall be managed in accordance with a Construction Environmental Management Plan, which shall be submitted to,

and agreed in writing with, the planning authority prior to commencement of development. The plan shall provide details of the intended construction practice for the development, including but not limited to, hours of working, noise and dust management measures, surface water protection and management proposals and off-site disposal of construction waste.

Reason: In the interest of public safety, residential amenity and protection of the environment.

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

Reason: To ensure satisfactory reinstatement of the site.

16. . 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 reinstatement of the public roads which may be damaged during construction, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory reinstatement of the public roads. The form and amount of the security shall be agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanala for determination.

Reason: To ensure the satisfactory reinstatement of public roads.

17. . 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 scheme.

Reason: It is a requirement of the Planning and Development Act 200, 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.

.Breda Gannon
Senior Planning Inspector

April 28th, 2022